Performance Based Disposal Plan for PCB-Containing Caulking and Glazing Compounds

Cloonan Middle School
Stamford, Connecticut

BBS Architect, Landscape Architects, and Engineers

Patchogue, New York

October 2013

Fuss & O'Neill EnviroScience, LLC
56 Quarry Road
Trumbull, CT 06611

Project No. 20121389.A2E

FUSS & O'NEILL
EnviroScience, LLC

October 21, 2013

Ms. Karalisa Grundner
BBS Architects, Landscape Architects, and Engineers
244 East Main Street
Patchogue, NY 11772

RE: Performance Based Disposal Plan
Caulking and Glazing Compounds
Cloonan Middle School, Stamford, Connecticut
Fuss & O'Neill Project No. 20121389.A2E

Dear Ms. Grundner:

We are submitting this Performance Based Disposal Plan for removal of polychlorinated biphenyls (PCBs) containing materials at the above referenced site. This plan has been prepared in accordance with the requirements of 40 CFR Part 761.62(a).

Thank you for your attention to this matter and if you have any questions with regard to the plan please contact either of the undersigned at (203) 374-3748.

Sincerely,

Kevin McCarthy
Project Manager

Robert L. May, Jr.
President

KM/kr

Enclosure: Performance Based Disposal Plan

cc: Domenic Tramontozzi, City of Stamford Engineering Bureau

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1 Introduction

This plan has been prepared by Fuss & O'Neill EnviroScience, LLC (EnviroScience) on behalf of the City of Stamford, Domenic Tramontozzi, Senior Construction Manager, City of Stamford Engineering Bureau, 888 Washington Boulevard, Stamford, CT 06901, (203) 977-4180, dtramontozzi@ci.stamford.ct.us, and BBS Architects, Landscape Architects, and Engineers. The plan has been prepared to comply with the U.S. Environmental Protection Agency (EPA) requirements for a Performance Based Disposal Plan (PIP) in accordance with 40 CFR Part 761.62(a).

Interior window opening caulking compounds, window sash and frame adhesive, and interior adhesive under aluminum sill associated with the existing original exterior window systems located throughout the building have been determined to contain polychlorinated biphenyls (PCBs) above regulated concentrations at Cloonan Middle School, 11 West North Street, Stamford, Connecticut.

This PIP includes testing that was limited to the windows and door systems scheduled to be replaced. Building products sampled were limited to those associated with window and door systems which will be replaced during proposed renovations.

1.1 Background

1.1.1 Building Construction

The existing Cloonan Middle School was constructed in 1968 and consists of a three story building. The building consists of classrooms, a cafeteria, kitchen, gymnasium, auditorium, and support spaces. The top two floors were constructed of steel truss roof joists supported by structural concrete block and steel lally columns. The exterior of the top two floors is brick veneer. The bottom floor was constructed of concrete.

A Site Map of the existing building layout is included as *Figures 1-, 1-2, and 1-3*.

1.1.2 Renovation Project

The existing window and door systems are scheduled to be removed and replaced in conjunction with a construction project scheduled to be completed in 2014. The replacement includes removal and replacement of noted quantities of exterior windows and door systems. Additionally included in this replacement project is the removal and replacement of the exterior expansion joint caulking compounds throughout the exterior of the building.

Based on the scope of renovations, the following materials are scheduled to be disturbed:

- Approximately 190 window systems containing PCB Bulk Product in the form of Interior Window Opening Caulking Compounds – Grey Colored, Window Sash and Frame Adhesive, and Interior Adhesive under Aluminum Sill totaling approximately 2,600 linear feet

- Approximately 24 door systems containing <50 ppm PCB containing materials in the form of Exterior Door Frame Caulking Compounds – Brown Colored, Interior Door Caulking Compounds – Black Colored, and Interior Door Caulking Compounds – Grey Colored, Exterior Store Front Caulking Compounds – Brown Colored, Exterior Store Front Caulking Compounds - White Colored, Exterior Courtyard Store Front Caulking Compounds – White Colored totaling approximately 1,000 linear feet
- Approximately 70 expansion systems containing <50 ppm PCB containing materials in the form of Exterior Expansion Caulking Compounds – White Colored totaling approximately 2,000 linear feet
- Approximately 2 vent systems containing <50 ppm PCB containing materials in the form of Exterior Vent Louver Caulking Compounds – Brown Colored totaling approximately 20 linear feet

1.2 Project Objectives

This Performance Based Disposal Plan is for the removal of PCB containing materials with equal to or greater than 50 parts per million (ppm) PCBs as PCB Bulk Product Waste mixed with asbestos. The PCB Bulk Product Waste mixed with asbestos consists of interior window opening caulking compounds – grey colored, window sash and frame adhesive, and interior adhesive under aluminum sill, associated window glass and metal window frames.

The objective of the project is to remove PCB containing materials associated with the window systems as PCB Bulk Product Waste.

In accordance with State of Connecticut statutes and requirements of the Connecticut Department of Energy and Environmental Protection (CTDEEP), it is understood that the materials containing PCB <50 ppm but equal to or greater than 1 ppm PCB are regulated and require remediation. The scope of work has been included in this Performance Based Disposal Plan to remove materials containing PCB <50 ppm.

1.3 Plan Organization

This Performance Based Disposal Plan is organized into the following sections:

Section 2: Site Characterization

The site characterization section provides a summary of the sampling performed to delineate the nature and extent of PCB as required in accordance with 40 CFR Part 761.61. The section includes the nature of the contamination including kinds of materials; a summary of the procedures used to sample contaminated and adjacent surfaces; and the location and extent of the identified contaminated areas.

Section 3: Remediation Plan

The remediation plan includes a discussion of how the remedial objectives identified in Section 1.2 shall be met and the remediation approach, cleanup levels to be met and the verification sampling approach to

be utilized. This section includes diagrams depicting the areas of proposed remediation work and location for post-remediation verification sampling.

2 Site Characterization

This section provides a summary of the sampling performed to delineate the nature and extent of PCB as required in accordance with 40 CFR Part 761.61 (a)(3) (A-C). The section includes the nature of the contamination including kinds of materials; a summary of the procedures used to sample contaminated and adjacent surfaces; and the location and extent of the identified contaminated areas.

The following sections describe the selection of sample locations, sample collection methods, and the results of the characterization data. Sampling was performed in two distinct phases.

The initial site characterization of source materials (building products) such as caulking and glazing compounds (Phase 1) was performed by Eagle Environmental of Bristol, Connecticut. Additional source sampling as well as testing of adjacent surfaces to facilitate development of this Self-Implementing On-Site Cleanup and Disposal Plan (Phase 2) was performed by Fuss & O'Neill EnviroScience, LLC of Trumbull, Connecticut.

Figures depicting the locations of all samples collected by Fuss & O'Neill EnviroScience are included in *Figure 2-1, 2-2, 2-3, 2-4, 2-5, and 2-6*.

2.1 Sample Collection and Analysis

2.1.1 Source Material Sampling

Initial testing of source materials was conducted by Eagle Environmental representatives on March 18, 2013, and March 19, 2013. Additional testing of source materials was EnviroScience representatives on June 12, 2013, and June 27, 2013.

Bulk Sampling – Source Materials

Sampling performed by EnviroScience involved removal of bulk product materials (source materials) using hand tools to submit in bulk form to determine PCB content. Tools utilized to collect samples were decontaminated between sampling using a hexane wash series consisting of tap water, soapy water, distilled water, hexane, and distilled water. Each sample was placed in containers, labeled, and delivered to laboratory using proper chain of custody. Samples were analyzed at Phoenix Environmental Laboratories, Inc. of Manchester, Connecticut. The analytical method for analysis included extraction method 3540C and analysis method SW846 8082.

Samples of each of the following building products were collected for analysis of PCBs by either Eagle Environmental or EnviroScience:

- Interior Window Opening Caulking Compounds – Grey Colored
- Interior Window Sill Caulking Compounds – Black Colored
- Interior Window Glazing Compounds – Grey Colored

- Window Sash and Frame Adhesive
- Interior Replacement Window Glazing Compounds
- Interior Window Glazing Compounds – Black Colored
- Interior Adhesive under Aluminum Window Sill – Black Colored
- Interior Window Opening Caulking Compounds – Brown Colored
- Exterior Window Opening Caulking Compounds – White Colored
- Exterior Door Frame Caulking Compounds – Brown Colored
- Exterior Store Front Opening Caulking Compounds – Brown Colored
- Exterior Store Front Caulking Compounds – White Colored
- Exterior Vent Louver Caulking Compounds – Brown Colored
- Exterior Courtyard Store Front Caulking Compounds – White Colored
- Exterior Window Panel Caulking Compounds – White Colored
- Interior Door Caulking Compounds – Black Colored
- Interior Door Caulking Compounds – Grey Colored
- Exterior Expansion Caulking Compounds – White Colored

The sample numbers, locations, material description, and analysis results are included in *Table 2.1*. Refer to *Figure 2-1, 2-2, and 2-3* identifying the locations of collected samples.

2.1.2 Adjacent Surface Sampling

Sampling of adjacent surfaces was conducted by EnviroScience representatives on May 22, 2013, and June 27, 2013. All samples collected were transmitted to Phoenix Environmental Laboratories, Inc. of Manchester, Connecticut. The analytical method for analysis included extraction method 3540C and analysis method SW846 8082.

Porous Exterior Brick and Precast Concrete Surface

EnviroScience conducted sampling of masonry utilizing similar procedures within EPA "Standard Operating Procedures for Sampling Porous Surfaces for Polychlorinated Biphenyls" Dated May 5, 2011. Sampling involved first complete removal of bulk product materials (source materials) at sampling location using hand tools. Intent was to ensure complete removal of source material prior to sampling adjacent surfaces. Once removal of all visible source material was performed the porous surfaces were cleaned using Hexane with a wire brush and surface was rinsed with distilled water.

The adjacent porous surface sampled included the exterior brick and exterior precast concrete. The porous surfaces were sampled using a mechanical hammer drill to obtain samples at a depth of one half inch at the joint of the following materials on May 22, 2013:

- Exterior Store Front Opening Caulking Compounds
- Exterior Window Paneling Caulking Compounds
- Exterior Courtyard Store Front Caulking Compounds
- Exterior Window Opening Caulking Compounds
- Exterior Vent Louver Caulking compounds
- Exterior Door Frame Caulking Compounds

This sampling was performed to identify the extent of PCB contamination within the exterior brick and/or precast concrete.

Tools utilized to collect samples were decontaminated between sampling using a hexane wash series consisting of tap water, soapy water, distilled water, hexane, and distilled water. Each sample was placed in 4 ounce glass jars, labeled and delivered to laboratory using proper chain of custody.

Porous Interior Brick, Block, and Precast Concrete Surface

EnviroScience conducted sampling of masonry utilizing similar procedures within EPA "Standard Operating Procedures for Sampling Porous Surfaces for Polychlorinated Biphenyls" dated May 5, 2011. Sampling involved first complete removal of bulk product materials (source materials) at sampling location using hand tools. Intent was to ensure complete removal of source material prior to sampling adjacent surfaces. Once removal of all visible source material was performed the porous surfaces were cleaned using Hexane with a wire brush and surface was rinsed with distilled water.

The adjacent porous surface sampled included the interior block and interior precast concrete. The porous surface was sampled using a mechanical hammer drill to obtain samples at a depth of one half inch at the joint of the following materials on May 22, 2013, and June 27, 2013:

- Interior Window Opening Caulking Compounds – Grey Colored
- Interior Window Opening Caulking Compounds – Brown Colored
- Interior Adhesive under Aluminum Window Sill – Brown Colored
- Interior Door Caulking Compounds – White Colored
- Interior Door Caulking Compounds – Black Colored

This sampling was performed to identify the extent of PCB contamination within the interior brick, block, and precast concrete.

Tools utilized to collect samples were decontaminated between sampling using a hexane wash series consisting of tap water, soapy water, distilled water, hexane, and distilled water. Each sample was placed in 4 ounce glass jars, labeled and delivered to laboratory using proper chain of custody.

2.2 Sample Analysis Results

The following tables summarize the specific sampling locations of collected samples and results of PCB analysis. The analytical method for analysis included extraction method 3540C (Soxhlet Extraction) and analysis method SW846 8082. The laboratory results and chain of custody are included in *Appendices A and B.*

2.2.1 Source Material Sample Analysis Results

The analysis results of all collected materials are summarized in *Table 2.1.*

PCB Bulk Product

Results of sampling indicate several samples were identified as containing PCB ≥ 50 ppm associated with the existing original windows in the building. Interior window opening caulking compounds – grey colored, interior adhesive under aluminum window sill – black colored, and window sash and frame adhesive containing PCB ≥ 50ppm are listed in the following table.

PCB Bulk Products Summary

Sample Number(s)	Sampled Location(s)	Material Description	Result (ppm)
3-18-PCB-IWOGC-01, **02**, 03, 04	Room 306, **320**, 205, and Library	Interior Window Opening Caulking Compounds – Grey Colored	7.5 – 72 (Aroclor 1254) 15 (Aroclor 1248 and 1254)
3-18-PCB-WSFA-13, 14, **15**	Room 305, 105, and **205**	Window Sash and Frame Adhesive	5.6 – 16 (Aroclor 1254 and 1260) 450 (Aroclor 1260)
3-18-PCB-BIAUWS-**18**	**D Side Corridor 2nd Floor**	Interior Adhesive under Aluminum Window Sills	300 (Aroclor 1260)

Note: **Bold** indicts location of ≥ 50 ppm

Based on the sampling results, the interior window opening caulking compounds – grey colored, window sash and frame adhesive, and interior adhesive under aluminum window sills are considered PCB Bulk Products. Additionally, the non-porous window frame, and window sill in contact with caulking compounds will require disposal as PCB Bulk Product Waste.

Additionally, these materials were sampled for asbestos content and interior window opening caulking compounds and interior adhesive under aluminum window sills were determined to contain regulated concentrations of asbestos in representative samples.

Exterior Window Systems Containing PCB Bulk Product

Interior Window Opening Caulking Compounds Classified as PCB Bulk Product

<50 PPM Containing Materials To Be Removed with PCB Bulk Product

Results of sampling indicate several samples were identified as containing PCB <50 ppm associated with the existing windows in the building and will be removed and disposed of along with the PCB Bulk Product in an effort to streamline the remediation at the site. Interior window sill caulking compounds – black colored, interior window glazing compounds – grey colored, interior replacement window glazing compounds, interior window glazing compounds – black colored, interior window opening caulking compounds – brown colored, exterior window opening caulking compounds – white colored, and exterior window panel caulking compounds – white colored containing PCB <50 ppm are listed in the following table:

<50 PPM Containing Materials To Be Removed With PCB Bulk Product Summary

Sample Number(s)	Sampled Location	Material Description	Result (ppm)
3-18-PCB-IWSBC-05, 06, 07, 08	Room 306, 208, 311, and 303	Interior Window Sill Caulking Compounds – Black Colored	ND <0.78 – 3.2 (Aroclor 1260)
3-18-PCB-IGWGC-19, 10, 11, 12	Room 306, 208, 320, and Library	Interior Window Glazing Compounds – Grey Colored	ND <0.76 – 1.7 (Aroclor 1260)
3-18-PCB-IRWGC-16	Room 310	Interior Replacement Window Glazing Compound	1.9 (Aroclor 1260)
3-18-PCB-IWBGC-17	Room 310	Interior Window Glazing Compounds	1.5 (Aroclor 1254)
3-18-PCB-IWOBC-19, 20	A Side Corridor 1st Floor and D Side Corridor	Interior Window Opening Caulking Compounds – Brown Colored	9.8 – 20 (Aroclor 1254)

Sample Number(s)	Sampled Location	Material Description	Result (ppm)
	1st Floor		
3-19-PCB-EWOC-21, 22, 23	A Side Exterior, B Side Exterior, and C Side Exterior	Exterior Window Opening Caulking Compounds – White Colored	30 – 20 (Aroclor 1254) 3.5 (Aroclor 1254 and 1260)
3-19-PCB-EWPC-34, 35	C Side Exterior	Exterior Window Panel Caulking Compounds – White Colored	0.83 – 1.0 (Aroclor 1254)

Based on sampling results, the interior window sill caulking compounds – black colored, interior window glazing compounds – grey colored, interior replacement window glazing compounds, interior window glazing compounds – black colored, interior window opening caulking compounds – brown colored, and exterior window opening caulking compounds – white colored, and exterior window panel caulking compounds – white colored are <50 ppm based on samples collected. However in an effort to streamline the remediation at the site, the above mentioned materials will be disposed of with the entire window systems where interior window caulking compounds – grey colored has been determined to contain ≥ 50 ppm PCB and are considered PCB Bulk Product Waste.

Additionally, these materials were sampled for asbestos content and interior window glazing compounds –black colored, interior window opening caulking compounds – brown colored, exterior window opening caulking compounds – white colored, were determined to contain regulated concentrations of asbestos in representative samples.

<u><50 PPM Containing Materials</u>

Results of sampling indicate several samples were identified as containing PCB <50 ppm in the building and will be removed and disposed of as waste containing <50 ppm PCB. Exterior door frame caulking compounds – brown colored, exterior vent louver caulking compounds – brown colored, exterior store front caulking compounds – brown colored, exterior store front caulking compounds - white colored, exterior courtyard store front caulking compounds – white colored, interior door caulking compounds – black colored, interior door caulking compounds – grey colored, and exterior expansion caulking compounds – white colored containing PCB <50 ppm are listed in the following table:

<50 PPM Containing Materials Summary

Sample Number(s)	Sampled Location	Material Description	Result (ppm)
3-19-PCB-EDFC-24, 25, 26	A Side Exterior, B Side Exterior, C Side Exterior	Exterior Door Frame Caulking Compounds – Brown Colored	ND <0.50 – 2.2 (Aroclor 1254)
3-19-PCB-ESFOC-27, 28, 29		Exterior Store Front Opening Caulking Compounds – Brown Colored	3.0 (Aroclor 1254 and 1260) 2.6 (Aroclor 1260)

Sample Number(s)	Sampled Location	Material Description	Result (ppm)
3-19-PCB-ESFCC-30, 3-19-PCB-ECYSFC-32, 33	A Side Exterior and Courtyard Exterior	Exterior Store Front Caulking Compounds – White Colored and Exterior Courtyard Store Front Caulking Compounds – White Colored	ND <0.74 - 1.5 (Aroclor 1254)
3-19-PCB-EVLC-31	C Side	Exterior Vent Louver Caulking Compounds _ Brown Colored	1.2 (Aroclor 1254)
2013-0612-0926-IDC-01A, 01B	Lobby, Stairwell at Lobby	Interior Door Caulking Compounds – Black Colored	2.7 – 2.9 (Aroclor 1254)
2013-0612-0926-IDC-01A, 02C, 2013-0627-1007-IDC-02B	Stairwell at Custodian Office, Chorus Room, Kitchen	Interior Door Caulking Compounds – Grey Colored	12 – 14 (Aroclor 1254)
2013-0612-0926-EEC-01A-C	A Side Exterior, B Side Exterior, C Side Exterior	Exterior Expansion Caulking Compounds	1.79 – 1.9 (Aroclor 1254)

Based on sampling results, the exterior door frame caulking compounds – brown colored, exterior vent louver caulking compounds – brown colored, interior door caulking compounds – black colored, interior door caulking compounds – grey colored, and exterior expansion caulking compounds – white colored are <50 ppm with representative samples collected. The materials are an original product and no renovation or repair work has been performed. The materials meet the definition of an Excluded PCB Product in accordance with the definition in 40 CFR 761.3 and will be removed and disposed of as <50 ppm PCB containing materials.

Additionally, these materials were sampled for asbestos content and exterior door caulking compounds – brown colored and exterior vent louver caulking compounds – brown colored were determined to contain regulated concentrations of asbestos in representative samples.

Laboratory analysis results and chain of custody are included in *Appendix A* for source materials. The sample numbers, location, material description, and analysis results are included in *Table 2.1*. Refer to *Figure 2-1, 2-2, and 2-3* identifying the locations of collected samples.

2.2.2 Adjacent Porous Sample Analysis Results

The analysis results of adjacent porous materials are summarized in *Table 2.2*.

Adjacent Sampling of PCB Bulk Product

The results indicate that the adjacent porous interior concrete block and precast concrete surface at the joint of the interior window opening caulking compounds – grey colored and interior adhesive under aluminum window sill – black colored did not contain the presence of PCBs >1 ppm. The sample results of the adjacent sampling are summarized in the following table.

Sample Number(s)	Sampled Location(s)	Material Description	Result (ppm)
2013-0522-1007-IWOGC-01-AS-CONCRETE - 01A, 01B	Room 306 and 320	Chip sample of concrete block at joint of interior window opening caulking compounds – grey colored at a depth of ½ inch	ND < 0.33 – 0.52 (Aroclor 1254)
2013-0522-1007-IWOGC-01-AS-CONCRETE -01C	Library	Chip sample of precast concrete at joint of interior window opening caulking compounds – grey colored at a depth of ½ inch	ND <0.34
2013-0522-1007-BIAUWS-18-AS-CONCRETE-01	D Side Corridor 2nd Floor	Chip sample of concrete block at joint of interior adhesive under aluminum window sill – black colored at a depth of ½ inch	0.67 (Aroclor 1260)

Based on the sampling results, the interior concrete block and precast concrete at the joint of the interior window opening caulking compound – grey colored and interior adhesive under aluminum sill – black colored contain PCBs <1.0 ppm and thus are not required to be removed.

Laboratory analysis results and chain of custody are included in *Appendix B* for adjacent porous material bulk samples. The sample numbers, locations, material description, and analysis results are included in *Table 2.2*. Refer to *Figure 2-4, 2-5, and 2-6* identifying locations of collected samples.

Adjacent Sampling of <50 PPM Containing Materials

The results indicate that the adjacent porous exterior brick and precast concrete surface at the joint of the exterior store front opening caulking compounds – brown colored, exterior window paneling caulking compounds – white colored, exterior courtyard store front caulking compounds – white colored, exterior window opening caulking compounds – white colored, exterior vent louver caulking compounds – brown colored, and exterior door frame caulking compounds – brown colored did not contain the presence of PCBs >1 ppm. Additionally the results indicate that the adjacent porous interior brick and precast concrete surface at the joint of the interior window opening caulking compounds – brown colored, interior door caulking compounds – black colored, and interior door caulking compounds – grey colored did not contain the presence of PCBs >1 ppm. The sample results of the adjacent sampling are summarized in the following table.

Sample Number(s)	Sampled Location(s)	Material Description	Result (ppm)
2013-0522-1007-IWOBC-20-AS-BRICK-01	A Side Corridor 1st Floor	Chip sample of brick at joint of interior window opening caulking compounds – brown colored at a depth of ½ inch	ND <0.33
2013-0522-1007-ESFOC-27-AS-BRICK-01	A Side Exterior	Chip sample of brick at joint of exterior store front opening caulking compounds – brown colored at a depth of ½ inch	ND <0.32

Sample Number(s)	Sampled Location(s)	Material Description	Result (ppm)
2013-0522-1007-EWPL-35-AS-BRICK-01	C Side Exterior	Chip sample of brick at joint of exterior window panel caulking compounds – white colored at a depth of ½ inch	ND <0.33
2013-0522-100-ECYSFC-33-AS-BRICK-01	Courtyard	Chip sample of brick at joint of exterior courtyard store front caulking compounds – white colored at a depth of ½ inch	ND <0.33
2013-0522-1007-EWOC-23-AS-BRICK-01	C Side Exterior	Chip sample of brick at joint of exterior window opening caulking compounds – white colored at a depth of ½ inch	ND <0.33
2013-0522-1007-EVLC-31-AS-CONCRETE_01	C Side Exterior	Chip sample of precast concrete at joint of exterior vent louver caulking compounds – brown colored at a depth of ½ inch	ND <0.33
2013-0522-1007-EDFC-26-AS-CONCRETE-01	C Side Exterior	Chip sample of precast concrete at joint of exterior door frame caulking compounds – brown colored at a depth of ½ inch	ND <0.34
2013-0627-1007-IDC-02B-AS-CONCRETE	Stairwell at Custodian	Chip sample of precast concrete at joint of interior door caulking compounds – grey colored at a depth of ½ inch	0.49 (Aroclor 1254)
2013-0627-1007-IDC-01A-AS-BRICK	Stairwell at Lobby	Chip sample of brick at joint of interior door caulking compounds – black colored at a depth of ½ inch	ND <0.33

Based on the sampling results, the adjacent porous exterior brick and precast concrete surface at the joint of the exterior store front opening caulking compounds – brown colored, exterior window paneling caulking compounds – white colored, exterior courtyard store front caulking compounds – white colored, exterior window opening caulking compounds – white colored, exterior vent louver caulking compounds – brown colored, and exterior door frame caulking compounds – brown colored did not contain the presence of PCBs >1 ppm. Additionally the results indicate that the adjacent porous interior brick and precast concrete surface at the joint of the interior window opening caulking compounds – brown colored, interior door caulking compounds – black colored, and interior door caulking compounds – grey colored did not contain the presence of PCBs >1 ppm. The sampling results are further evidence that the materials are Excluded PCB Products in accordance with the definition in 40 CFR 761.3 and will be removed and disposed of as <50 ppm PCB containing materials.

Laboratory analysis results and chain of custody are included in *Appendix B* for adjacent porous material bulk samples. The sample numbers, locations, material description, and analysis results are included in *Table 2.2*. Refer to *Figure 2-4, 2-5, and 2-6*identifying locations of collected samples.

Table 2.1
Source Materials Analysis Results Summary

DATE COLLECTED	SAMPLE NO.	LOCATION	MATERIAL DESCRIPTION	RESULTS (PPM)
3/18/13	3-18-PCB-IWOGC-01	Room 306	Interior Window Opening Caulking Compounds – Grey	15 (Aroclor 1248 and 1254)
3/18/13	3-18-PCB-IWOGC-02	Room 320		72 (Aroclor 1254)
3/18/13	3-18-PCB-IWOGC-03	Room 205		7.5 (Aroclor 1254)
3/18/13	3-18-PCB-IWOGC-04	Library		30 (Aroclor 1254)
3/18/13	3-18-PCB-IWSBC-05	Room 306	Interior Window Sill Caulking Compounds – Black	ND <0.78
3/18/13	3-18-PCB-IWSBC-06	Room 208		ND <0.78
3/18/13	3-18-PCB-IWSBC-07	Room 311		2.7 (Aroclor 1260)
3/18/13	3-18-PCB-IWSBC-08	Room 303		3.2 (Aroclor 1260)
3/18/13	3-18-PCB-IGWGC-09	Room 306	Interior Window Glazing Compounds – Grey	ND <0.99
3/18/13	3-18-PCB-IGWGC-10	Room 208		ND <0.76
3/18/13	3-18-PCB-IGWGC-11	Room 320		1.7 (Aroclor 1260)
3/18/13	3-18-PCB-IGWGC-12	Library		ND <0.80
3/18/13	3-18-PCB-WSFA-13	Room 305	Window Sash and Frame Adhesive	16 (Aroclor 1254 and 1260)
3/18/13	3-18-PCB-WSFA-14	Room 105		5.6 (Aroclor 1254 and 1260)
3/18/13	3-18-PCB-WSFA-15	Room 205		450 (Aroclor 1260)
3/18/13	3-18-PCB-IRWGC-16	Room 310	Interior Replacement Window Glazing Compounds	1.9 (Aroclor 1260)
3/18/13	3-18-PCB-IWBGC-17	Room 319	Interior Window Glazing Compounds – Black	1.5 (Aroclor 1254)
3/18/13	3-18-PCB-BIAUWS-18	D Side Corridor 2nd Floor	Black Interior Adhesive under Aluminum Window Sill	300 (Aroclor 1260)
3/18/13	3-18-PCB-IWOBC-19	A Side Corridor 1st Floor	Interior Window Opening Caulking Compound – Brown	9.8 (Aroclor 1254)
3/18/13	3-18-PCB-IWOBC-20	D Side Corridor 1st Floor		27 (Aroclor 1254)
3/19/13	3-19-PCB-EWOC-21	A Side Exterior	Exterior Window Opening Caulking Compounds – White	3.5 (Aroclor 1254 and 1260)
3/19/13	3-19-PCB-EWOC-22	B Side Exterior		3.0 (Aroclor 1254)
3/19/13	3-19-PCB-EWOC-23	C Side Exterior		20 (Aroclor 1254)
3/19/13	3-19-PCB-EDFC-24	A Side Exterior	Exterior Door Frame Caulking Compounds – Brown	ND <0.81
3/19/13	3-19-PCB-EDFC-25	B Side Exterior		ND <0.50
3/19/13	3-19-PCB-EDFC-26	C Side Exterior		2.2 (Aroclor 1254)
3/19/13	3-19-PCB-ESFOC-27	A Side Exterior	Exterior Store Front Opening Caulking Compounds – Brown	3.0 (Aroclor 1254 and 1260)
3/19/13	3-19-PCB-ESFOC-28	B Side Exterior		ND <0.47
3/19/13	3-19-PCB-ESFOC-29	C Side Exterior		2.6 (Aroclor 1260)
3/19/13	3-19-PCB-ESFCC-30	A Side Exterior	Exterior Store Front Caulking Compounds – White	ND <0.74
3/19/13	3-19-PCB-EVLC-31	C Side Exterior	Exterior Vent Louver Caulking Compounds – Brown	1.2 (Aroclor 1254)
3/19/13	3-19-PCB-ECYSFC-32	Courtyard Exterior	Exterior Courtyard Store Front Caulking Compounds – White	1.4 (Aroclor 1254)
3/19/13	3-19-PCB-ECYSFC-33	Courtyard Exterior		1.5 (Aroclor 1254)
3/19/13	3-19-PCB-EWPC-34	C Side Exterior	Exterior Window Panel Caulking Compounds – White	0.83 (Aroclor 1254)
3/19/13	3-19-PCB-EWPCB-35	C Side Exterior		1.0 (Aroclor 1254)
6/12/13	2013-0612-0926-IDC-01A	Lobby	Interior Door Caulking Compounds – Black	2.7 (Aroclor 1254)
6/12/13	2013-0612-0926-IDC-01B	Stairwell at Lobby		2.9 (Aroclor 1254)
6/12/13	2013-0612-0926-IDC-02A	Stairwell at Custodian Office	Interior Door Caulking Compounds - Grey	12 (Aroclor 1254)
6/27/13	2013-0627-1007-IDC-02B	Stairwell at Chorus Room		14 (Aroclor 1254)

DATE COLLECTED	SAMPLE NO.	LOCATION	MATERIAL DESCRIPTION	RESULTS (PPM)
6/12/13	2013-0612-0926-IDC-02C	Stairwell at Kitchen		12 (Aroclor 1254)
6/12/13	2013-0612-0926-EEC-01A	A Side Exterior	Exterior Expansion Caulking Compounds – White	0.92 (Aroclor 1254)
6/12/13	2013-0612-0926-EEC-01B	B Side Exterior		0.79 (Aroclor 1254)
6/12/13	2013-0612-0926-EEC-01C	C Side Exterior		1.9 (Aroclor 1254)

Table 2.2
Adjacent Porous Materials Sample Analysis Results Summary

DATE COLLECTED	SAMPLE NO.	LOCATION	MATERIAL DESCRIPTION	RESULTS (PPM)
5/22/13	2013-0522-1007-IWOGC-01-AS-CONCRETE-01A	Room 306	Chip sample of concrete block at joint of interior window opening caulking compounds – grey colored at a depth of ½ inch	ND <0.33
5/22/13	2013-0522-1007-IWOGC-01-AS-CONCRETE-01B	Room 320	Chip sample of concrete block at joint of interior window opening caulking compounds – grey colored at a depth of ½ inch	0.52 (Aroclor 1254)
5/22/13	2013-0522-1007-IWOGC-01-AS-CONCRETE-01C	Library	Chip sample of precast concrete at joint of interior window opening caulking compounds – grey colored at a depth of ½ inch	ND <0.34
5/22/13	2013-0522-1007-IWOBC-20-AS-BRICK-01	A Side Corridor 1st Floor	Chip sample of brick at joint of interior window opening caulking compounds – brown colored at a depth of ½ inch	ND <0.33
5/22/13	2013-0522-1007-BIAUWS-18-AS-CONCRETE-01	D Side Corridor 2nd Floor	Chip sample of concrete block at joint of interior adhesive under aluminum window sill – black colored at a depth of ½ inch	0.67 (Aroclor 1260)
5/22/13	2013-0522-1007-ESFOC-27-AS-BRICK-01	A Side Exterior	Chip sample of brick at joint of exterior store front opening caulking compounds – brown colored at a depth of ½ inch	ND <0.32
5/22/13	2013-0522-1007-EWPL-35-AS-BRICK-01	C Side Exterior	Chip sample of brick at joint of exterior window panel caulking compounds – white colored at a depth of ½ inch	ND <0.33
5/22/13	2013-0522-1007-ECYSFC-33-AS-BRICK-01	Courtyard	Chip sample of brick at joint of exterior courtyard store front caulking compounds – white colored at a depth of ½ inch	ND <0.33
5/22/13	2013-0522-1007-EWOC-23-AS-BRICK-01	C Side Exterior	Chip sample of brick at joint of exterior window opening caulking compounds – white colored at a depth of ½ inch	ND <0.33
5/22/13	2013-0522-1007-EVLC-31-AS-CONCRETE_01	C Side Exterior	Chip sample of precast concrete at joint of exterior vent louver caulking compounds – brown colored at a depth of ½ inch	ND <0.34
5/22/13	2013-0522-1007-EDFC-26-AS-CONCRETE-01	C Side Exterior	Chip sample of precast concrete at joint of exterior door frame caulking compounds – brown colored at a depth of ½ inch	ND <0.34
6/27/13	2013-0627-1007-IDC-02B-AS-CONCRETE	Stairwell at Custodian	Chip sample of precast concrete at joint of interior door caulking compounds – grey colored at a depth of ½ inch	0.49 (Aroclor 1254)
6/27/13	2013-0627-1007-IDC-01A-AS-BRICK	Stairwell at Lobby	Chip sample of brick at joint of interior door caulking compounds – black colored at a depth of ½ inch	ND <0.33

ND – Not detected

3 Remediation Plan

The work described in this Performance Based Disposal Plan shall meet the objectives identified in Section 1.2 Project Objectives in accordance with 40 CFR Part 761.61. The remediation work shall be performed to ensure compliance with EPA Toxic Substance Control Act (TSCA) requirements and protect both public health and the environment.

Materials classified as PCB Bulk Product Waste shall be properly disposed in compliance with federal and state regulatory requirements. Refer to *Figures 3-1, 3-2, and 3-3* for locations requiring PCB abatement.

The proposed abatement activities to be performed by Remediation Contractor shall include the following:

1. Site preparation and controls to facilitate remediation of PCBs.
2. Health and Safety in accordance with Occupation Safety and Health Administration (OSHA) requirements.
3. Recordkeeping and distribution as required in accordance with 40 CFR part 761.62 (b) (5) and 761.125 (c)(5).

PCB ABATEMENT REQUIREMENTS

PCB Bulk Product Waste Removal

PCB-01 – Removal and off-site disposal of interior window opening caulking compounds – grey colored, window sash and frame adhesives, and interior adhesive under aluminum window sills – black colored as PCB Bulk Product Waste mixed with asbestos. Work includes the removal and disposal of window frame and window glass as a whole system. Includes removal and disposal of <50 ppm containing materials such as interior window glazing compounds, interior window opening caulking compounds – brown colored, interior window sill caulking compounds – black colored, exterior window opening caulking compounds – white colored, and exterior window paneling caulking compounds as a whole system.

<50 ppm PCBs Containing Material Removal

PCB-02 Removal and off-site disposal of exterior store front opening caulking compounds – brown colored, exterior store front caulking compounds – white colored, exterior courtyard store front caulking compounds – white colored, exterior door frame caulking compounds – brown colored, interior door caulking compounds – black colored, and interior door caulking compounds – grey colored as <50 ppm PCB waste mixed with asbestos. Work includes removal and disposal of store front window system and door frame as a whole system.

PCB-03 Removal and off-site disposal of exterior vent louver caulking compounds – grey colored as <50 ppm PCB waste mixed with asbestos. Include cleaning of vent frame scheduled to remain.

PCB-04 Removal and off-site disposal of exterior expansion caulking compounds – white colored as <50 ppm PCB waste.

Remediation activities to be performed by others shall include the following:

1. Monitoring remediation activities as Owner's representative shall be performed by Fuss & O'Neill EnviroScience.
2. Collection of verification samples in accordance with Sub-part O in accordance with 40 CRF Part 761.61(b) for PCB analysis shall be performed by Fuss & O'Neill EnviroScience representatives.
3. Building renovation and site restoration shall be performed by Owner's general trade's contractor under separate contract following PCB remediation.

Prior to abatement and remediation activities, site preparation and controls shall be established.

PCB Bulk Product Waste will be removed and transported off-site for disposal in accordance with 40 CFR 761.62 (a) or (b). The landfill shall be permitted to accept PCB Bulk Product Waste mixed with asbestos.

<50 ppm PCB containing materials will be removed and transported off-site for disposal in accordance with CTDEEP regulations. The landfill shall be permitted to accept <50 ppm PCB waste mixed with asbestos.

If post cleaning verification sampling identifies porous adjacent substrates, PCB Remediation Waste will be removed and transported off-site for disposal in accordance with 40 CFR 761.62 (a) or (b) at a facility permitted by the EPA at a permitted hazardous waste landfill which is an EPA, TSCA approved facility for PCB waste >50 ppm .

3.1 Site Preparation and Controls

The work shall be performed in accordance with the attached performance based technical specification section included in *Appendix C*. Prior to initiating PCB Abatement the following site controls will be implemented.

3.1.1 General Site Preparation and Controls

- Remediation Contractor shall prepare a site specific work plan as detailed in specification section attached.

- Remediation Contractor shall prepare a Health & Safety Plan (HASP) developed specific to the site and work activities to be performed. All workers shall follow applicable federal and state regulation with regard to work activities, including but not limited to OSHA regulation including personal protection and respiratory protection requirements.

- The project site shall be enclosed by a construction chain link fence. During all remediation activities, Remediation Contractor shall maintain control of all entrances and exits to the project site to ensure only authorized personnel enter the work areas and are afforded proper personal protective equipment and as required respiratory protection.

- All approaches to work areas shall be demarcated with appropriately worded warning signs.

- Work zones shall be established in accordance with technical specification to include abatement zone, decontamination zone, and support zone.

3.1.2 PCB Bulk Product Removal Site Preparation and Controls

- Ground protection to prevent debris from escaping the abatement zone and to protect areas outside of abatement zone from PCB contamination shall be utilized. Protection shall include the two layers of 6-mil reinforced polyethylene sheeting securely fastened to foundation.

- Isolation barriers shall be installed on the interior of the building, at the edge of the concrete block and/or precast concrete approximately six inches feet away from the window systems to isolate these systems to the building exterior where work shall be performed. Two layers of 6-mil reinforced polyethylene sheeting shall create the exterior critical barrier between the Abatement Zone and Interior of the Building.

- All other openings to the building interior such as unit ventilation, ducts, grilles shall be securely sealed with a single layer of 6-mil reinforced polyethylene sheeting from the building exterior.

- Ground protection and isolation barriers shall remain in place throughout work to collect dust and debris resulting from PCB Bulk Product Waste removal. All debris generated during operations including but not limited to visible caulking, dust and debris shall be HEPA vacuumed continuously throughout the work shift and at the end of a work shift to avoid accumulation. Any tears or rips that occur in protections shall be repaired or removed and replaced with new protections. Ground protection and isolation barriers shall not be removed until post-cleaning verification sampling has been performed and acceptable results have been achieved.

- All equipment utilized to perform cutting, or demolition of adjacent materials shall be equipped with appropriate dust collection systems.

- All surfaces adjacent to materials removed shall be properly decontaminated upon completing the removal of PCB Bulk Product Wastes. All visible dust shall be removed using HEPA vacuums and wet cleaning methods with solvent or other acceptable products.

- Appropriate PCB waste containers shall be placed adjacent to abatement zone within the construction chain link fence. Containers shall be lined covered and secured. The PCB waste containers shall be properly marked as described in 40 CFR part §761.40. Marking shall include a PCB M_L marker utilizing the format described in 40 CFR part §761.45.

3.1.3 <50 PPM PCB Containing Materials Site Preparation and Controls

- Ground protection to prevent debris from escaping the abatement zone and to protect areas outside of abatement zone from PCB contamination shall be utilized. Protection shall include the two layers of 6-mil reinforced polyethylene sheeting securely fastened to foundation.

- Isolation barriers shall be installed on the interior of the building, at the edge of the concrete block and/or precast concrete approximately six inches feet away from the door systems to isolate these systems to the building exterior where work shall be performed. Two layers of 6-mil reinforced polyethylene sheeting shall create the exterior critical barrier between the Abatement Zone and Interior of the Building.

- All other openings to the building interior such as unit ventilation, ducts, grilles shall be securely sealed with a single layer of 6-mil reinforced polyethylene sheeting from the building exterior.

3.2 Removal Procedures

The following removal procedures shall be utilized to conduct PCB Bulk Product Waste removal.

3.2.1 PCB Bulk Product Waste Materials

PCB Bulk Product Waste including interior window opening caulking compounds – grey colored, window frames, window glass, and miscellaneous <50 ppm PCB containing caulking and glazing associated with window systems shall be handled and removed from specified locations for proper disposal. Materials shall be removed in a manner which does not breakdown the materials into fine dust or powder to the extent feasible. Equipment and tools to be utilized shall include hand tools and mechanical tools attached with HEPA vacuums.

Any dry or brittle materials shall be removed with additional engineering controls such as use of a HEPA vacuum to remove accumulated dust or debris during removal. Once removed, materials shall be placed in lined containers or into appropriate temporary containers such as 6-mil polyethylene disposal bags for controlled transport to PCB waste containers at the end of each work shift. PCB Bulk Product Waste shall be stored for disposal in accordance with 40 CFR 761.65 and marked in accordance with 40 CFR Part 761.40 and 761.45.

Sequence of removal shall follow the following general requirements:

1. Site preparation and controls shall be completed. Work shall not proceed until authorized by Fuss & O'Neill EnviroScience representatives.
2. Window systems with PCB containing interior window opening caulking compounds –grey colored shall be removed in their entirety for disposal as PCB Bulk Product Waste. This includes but is not limited to frames and window glass and miscellaneous <50 ppm PCB containing caulking and glazing associated with the window systems.
3. Use a solvent as appropriate to completely remove all visible materials for disposal as PCB Bulk Product mixed with asbestos.

4. Clean all surface of adjacent materials using appropriate cleaning products or solvents to completely removal all dust and debris.
5. Once cleaning is complete, post cleaning verification sampling shall be conducted. If post cleaning verification sampling identifies concentrations of PCBs ≥1 ppm, then additional cleaning and if needed, removal of contaminated block will be conducted. Debris generated during this phase will be disposed of as PCB Remediation Waste.

3.2.2 <50 PPM PCB Containing Materials

<50 ppm PCB containing materials including interior and exterior door caulking compounds, exterior vent caulking compounds, and exterior expansion caulking compounds shall be handled and removed from specified locations for proper disposal. Materials shall be removed in a manner which does not breakdown the materials into fine dust or powder to the extent feasible. Equipment and tools to be utilized shall include hand tools and mechanical tools attached with HEPA vacuums.

Any dry or brittle materials shall be removed with additional engineering controls such as use of a HEPA vacuum to remove accumulated dust or debris during removal. Once removed, materials shall be placed in lined containers or into appropriate temporary containers such as 6-mil polyethylene disposal bags for controlled transport to PCB waste containers at the end of each work shift.

Sequence of removal shall follow the following general requirements for removal of exterior door systems containing exterior and interior door caulking compounds and exterior vent systems containing exterior vent louver caulking compounds:

1. Site preparation and controls shall be completed. Work shall not proceed until authorized by Fuss & O'Neill EnviroScience representatives.
2. Door systems with PCB containing interior and exterior door caulking compounds and vent systems with PCB containing vent louver caulking compounds shall be removed in their entirety for disposal as <50 ppm PCB waste. This includes but is not limited to door frames and vents.

Sequence of removal shall follow the following general requirements for removal of exterior expansion caulking compounds:

1. Site preparation and controls shall be completed. Work shall not proceed until authorized by Fuss & O'Neill EnviroScience representatives.
2. Exterior expansion caulking compounds shall be removed in their entirety for disposal as <50 ppm PCB waste.

3.3 Post-Cleaning Verification Sampling Plan

Following the completion of the PCB Bulk Product removal, Fuss & O'Neill EnviroScience representatives, shall implement the following verification sampling plan in accordance with 40 CFR Part 761.61 and to the extent applicable Sub-part O.

3.3.1 Visual Inspection

Upon completion of work, a visual inspection of all remediated surfaces for visible evidence of dust and debris shall be performed. The visual inspection shall provide in a preliminary visual way, verification that remediation work has been completed in accordance with this Self-Implementing On-Site Cleanup and Disposal Plan.

Visual inspection shall ensure no visible dust or debris is present on adjacent surfaces. In addition to the remediation surfaces the surfaces of protective coverings and isolation barriers shall be inspected to ensure they are cleaned of dust and debris.

3.3.2 Interior Concrete Block and Precast Concrete Surfaces

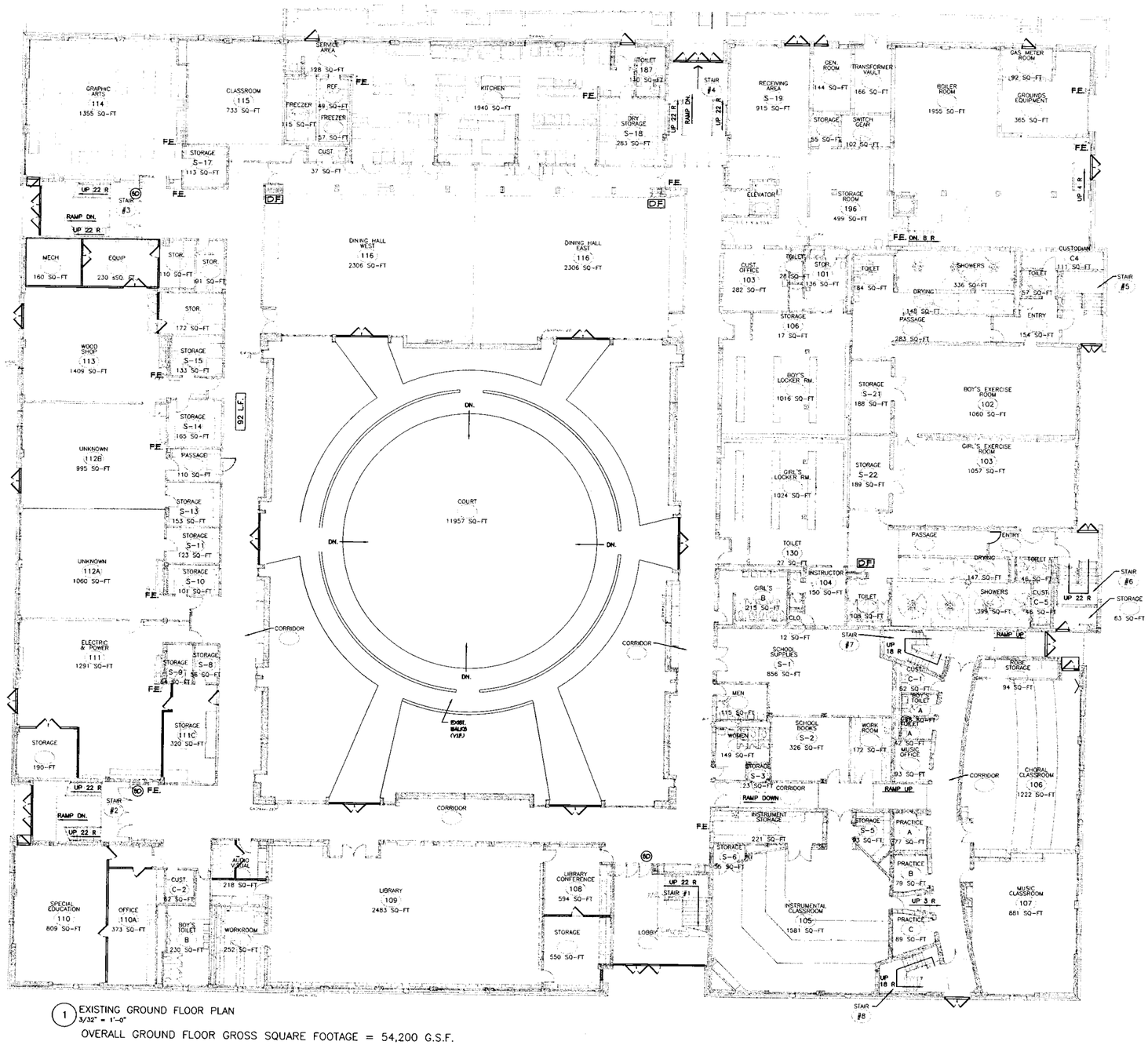
Interior block and precast concrete surfaces shall be evaluated to verify that removal of PCB Bulk Product Waste has resulted in surfaces with $\leq$1 ppm for unrestricted use based on high occupancy use of the structure. Fuss & O'Neill EnviroScience representatives shall follow the EPA "Standard Operating Procedures for Sampling Porous Surfaces for Polychlorinated Biphenyls" Dated May 5, 2011, to collect post-cleaning verification samples. The areas to be sampled shall be representative of the variety of conditions identified. Appropriate control samples shall also be collected.

Verification sampling of the concrete block and precast concrete shall be performed in accordance with a modified Sub-part O method and compared to clean-up standards required by the EPA of < 1ppm for unrestricted use. Post-cleaning verification samples shall be collected in a 1.5 meter (five foot) linear pattern. A sample will be collected from each point on the linear line for each substrate type (jamb or sill) and analyzed as a composite sample along with 5% duplicate samples. A maximum of 4 discrete samples shall be composited specific to each substrate type. None of the composite samples will mix sill or jamb substrates together.

Each composite sample result will be multiplied by number of sampling points in the composite sample to determine the "corrected" composite sample result. "Corrected" results shall be compared to the clearance objective which for unrestricted use shall be <1 ppm. If any location exceeds this clearance objective, additional cleaning and discrete post-cleaning verification sampling will be conducted.
If any location exceeds this clearance objective, additional cleaning and discrete post-cleaning verification sampling will be conducted.

A total of 50 composite samples created from 190 discrete samples associated with the sills and a total of 90 composite samples created from 334 discrete samples associated with the jambs are estimated for post-cleaning verification and analyzed. The laboratory shall be an accredited laboratory for PCB analysis. The analysis method shall include extraction using EPA Method 3540C (Soxhlet Extraction) and analysis method SW846 8082.

Figures



1 EXISTING GROUND FLOOR PLAN
3/32" = 1'-0"

OVERALL GROUND FLOOR GROSS SQUARE FOOTAGE = 54,200 G.S.F.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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SCALE:
HORZ.: 3/32"= 1'-0"
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DATUM:
HORZ.:
VERT.:
3/32 0 3/32
GRAPHIC SCALE

FUSS & O'NEILL
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MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com

BBS ARCHITECTS, LANDSCAPE ARCHITECTS & ENGINEERS, PC

EXISTING GROUND FLOOR PLAN

CLOONAN MIDDLE SCHOOL

11 WEST NORTH STREET

STAMFORD, CONNECTICUT

PROJ. No.: 20121389A2E
DATE: JULY 2013

FIG. 1-1

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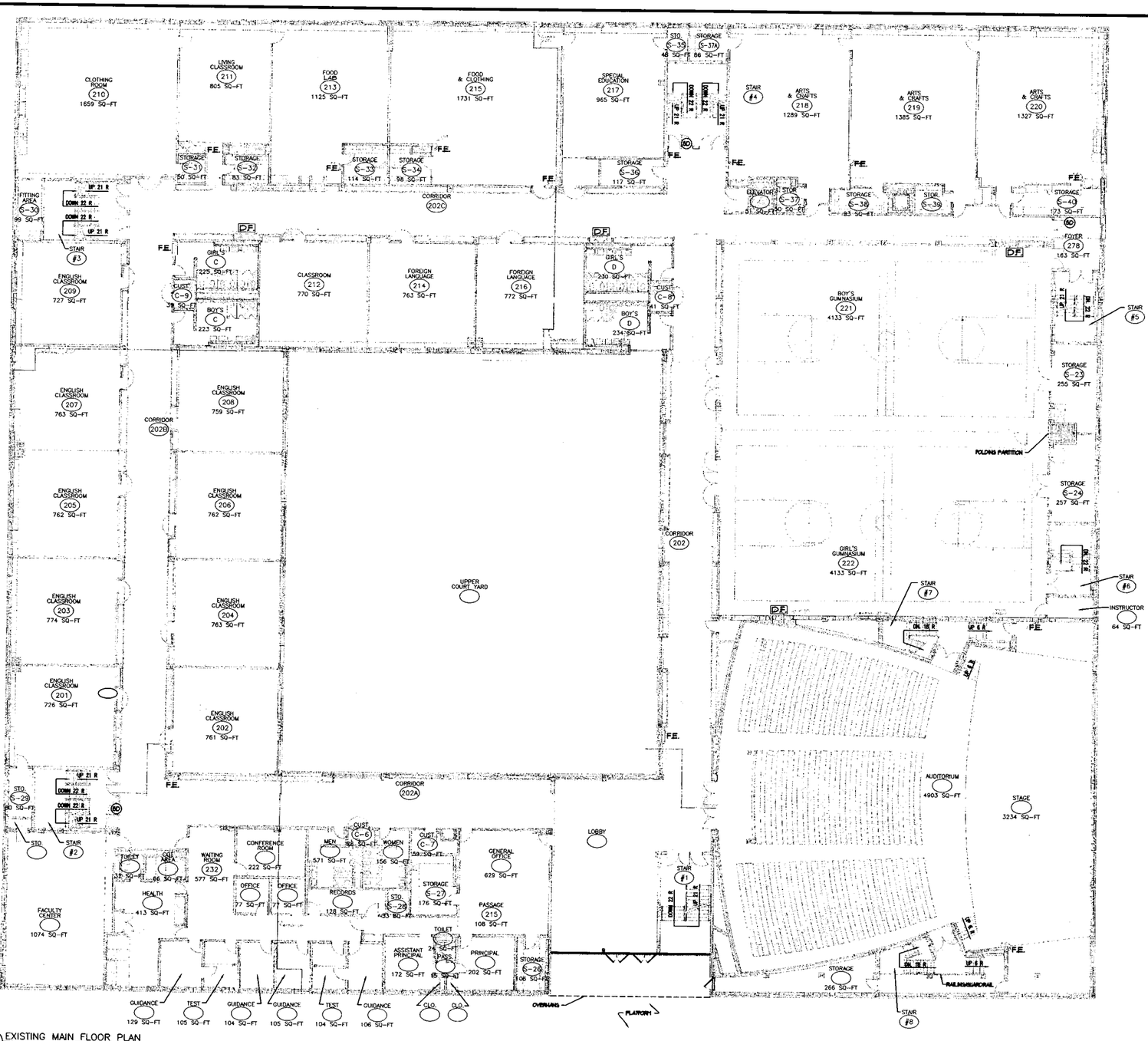

2 EXISTING MAIN FLOOR PLAN
3/32" = 1'-0"

OVERALL MAIN FLOOR GROSS SQUARE FOOTAGE = 60,599 G.S.F.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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SEAL

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SCALE:
HORZ.: 3/32"= 1'-0"
VERT.:
DATUM:
HORZ.:
VERT.:
3/32 0 3/32
GRAPHIC SCALE

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EXISTING MAIN FLOOR PLAN

CLOONAN MIDDLE SCHOOL

11 WEST NORTH STREET STAMFORD, CONNECTICUT

PROJ. No. 20121389A2E
DATE: JULY 2013

FIG. 1-2

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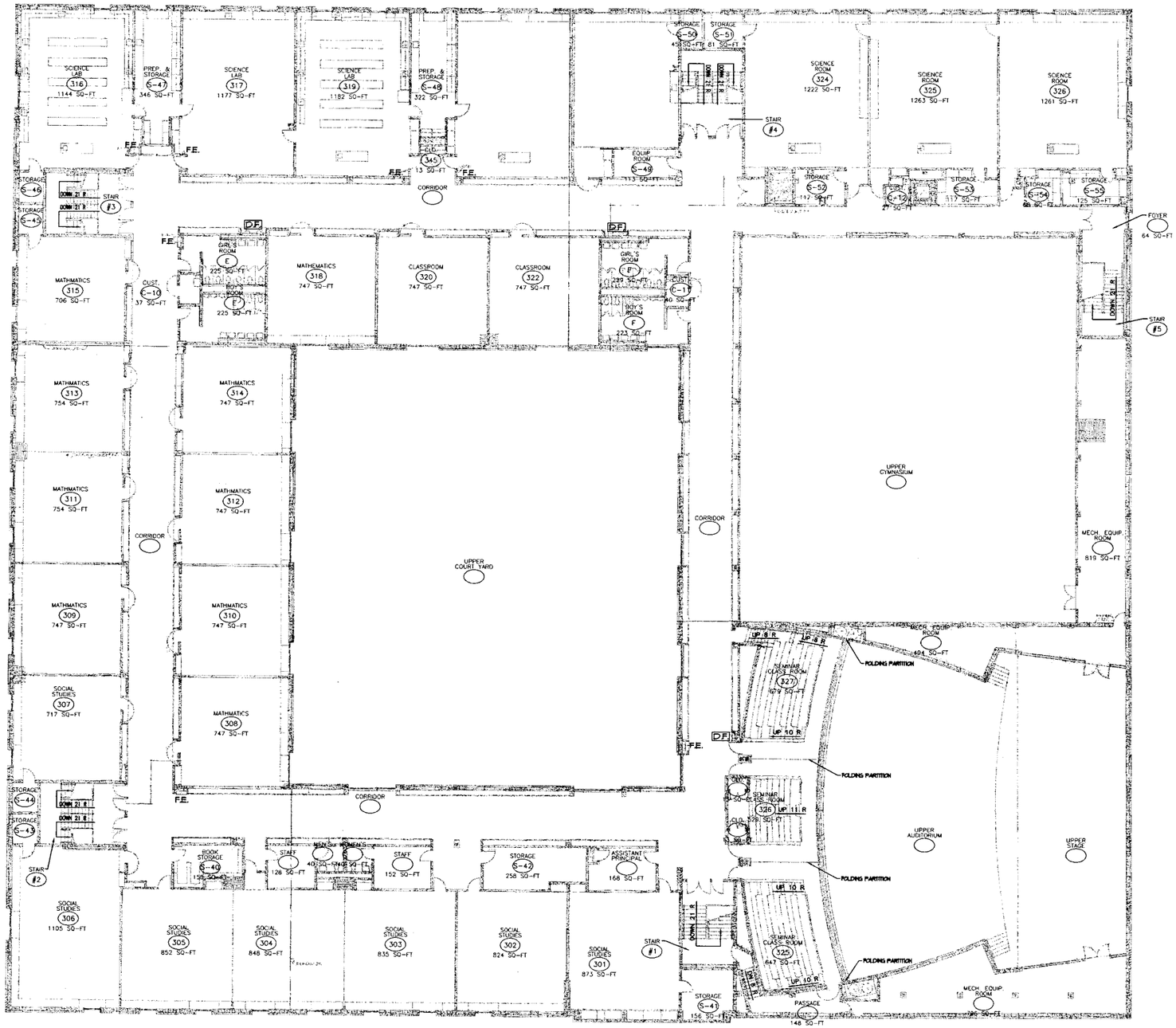

3 EXISTING SECOND FLOOR PLAN
3/32" = 1'-0"

OVERALL SECOND FLOOR GROSS SQUARE FOOTAGE = 61,068 G.S.F.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1			XX/XX	XX

SEAL

SEAL

SCALE:
HORZ.: 3/32"= 1'-0"
VERT.:
DATUM:
HORZ.:
VERT.:
3/32 0 3/32
GRAPHIC SCALE

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EXISTING SECOND FLOOR PLAN

CLOONAN MIDDLE SCHOOL

11 WEST NORTH STREET STAMFORD, CONNECTICUT

PROJ. No.: 20121389A2E
DATE: JULY 2013

FIG. 1-3

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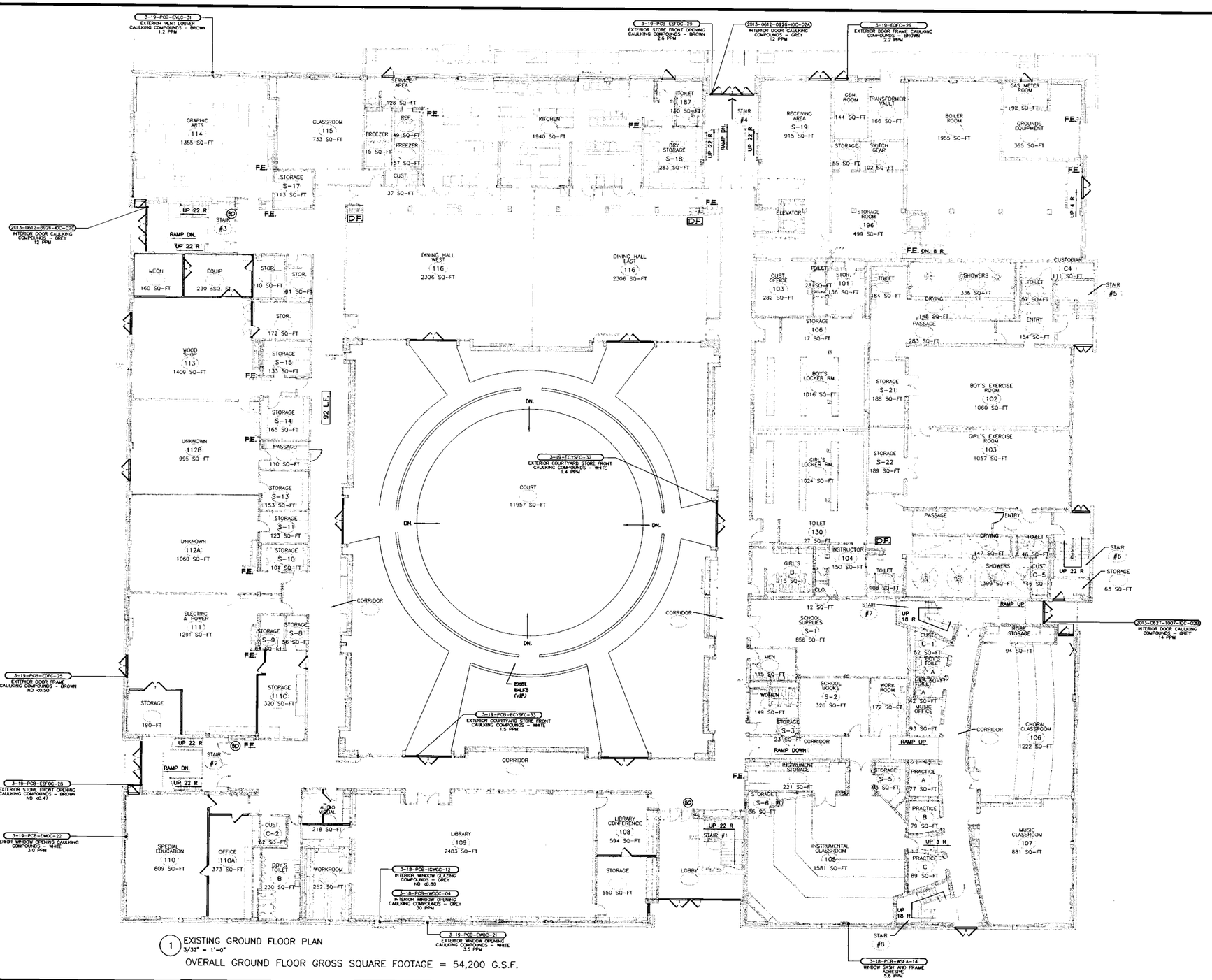

1 EXISTING GROUND FLOOR PLAN
3/32" = 1'-0"

OVERALL GROUND FLOOR GROSS SQUARE FOOTAGE = 54,200 G.S.F.

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No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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SEAL

SEAL

SCALE
HORZ.: 3/32"= 1'-0"
VERT.:
DATUM
HORZ.:
VERT.:
3/32 0 3/32
GRAPHIC SCALE

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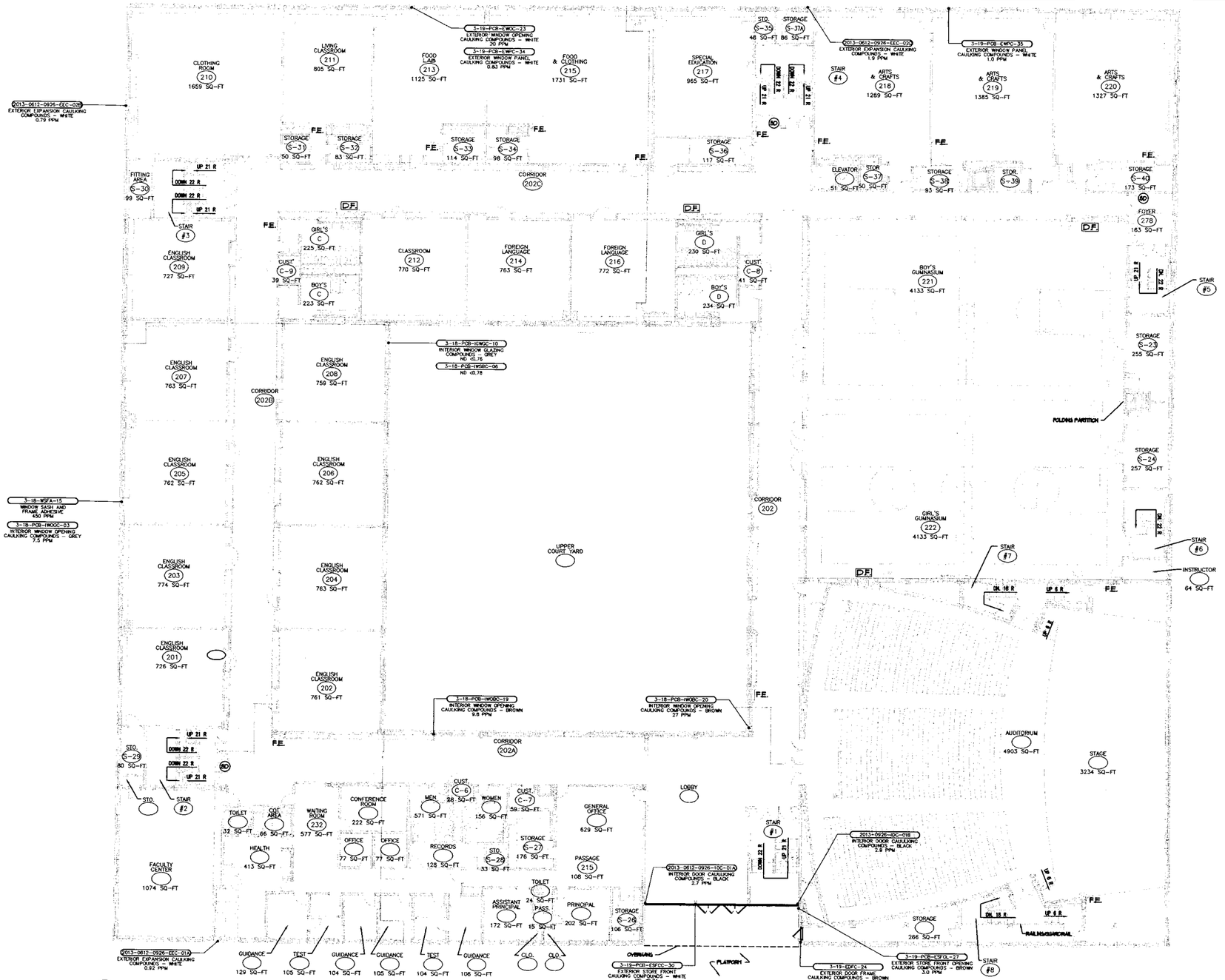
BBS ARCHITECTS, LANDSCAPE ARCHITECTS & ENGINEERS, PC
SOURCE PCB SAMPLE LOCATIONS
GROUND FLOOR
CLOONAN MIDDLE SCHOOL
11 WEST NORTH STREET
STAMFORD, CONNECTICUT

PROJ. No.: 20121389A2E
DATE: JULY 2013

FIG. 2-1



2 EXISTING MAIN FLOOR PLAN
3/32" = 1'-0"

OVERALL MAIN FLOOR GROSS SQUARE FOOTAGE = 60,599 G.S.F.

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SEAL

SEAL

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VERT.:
DATUM:
HORZ.:
VERT.:
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GRAPHIC SCALE

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MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com

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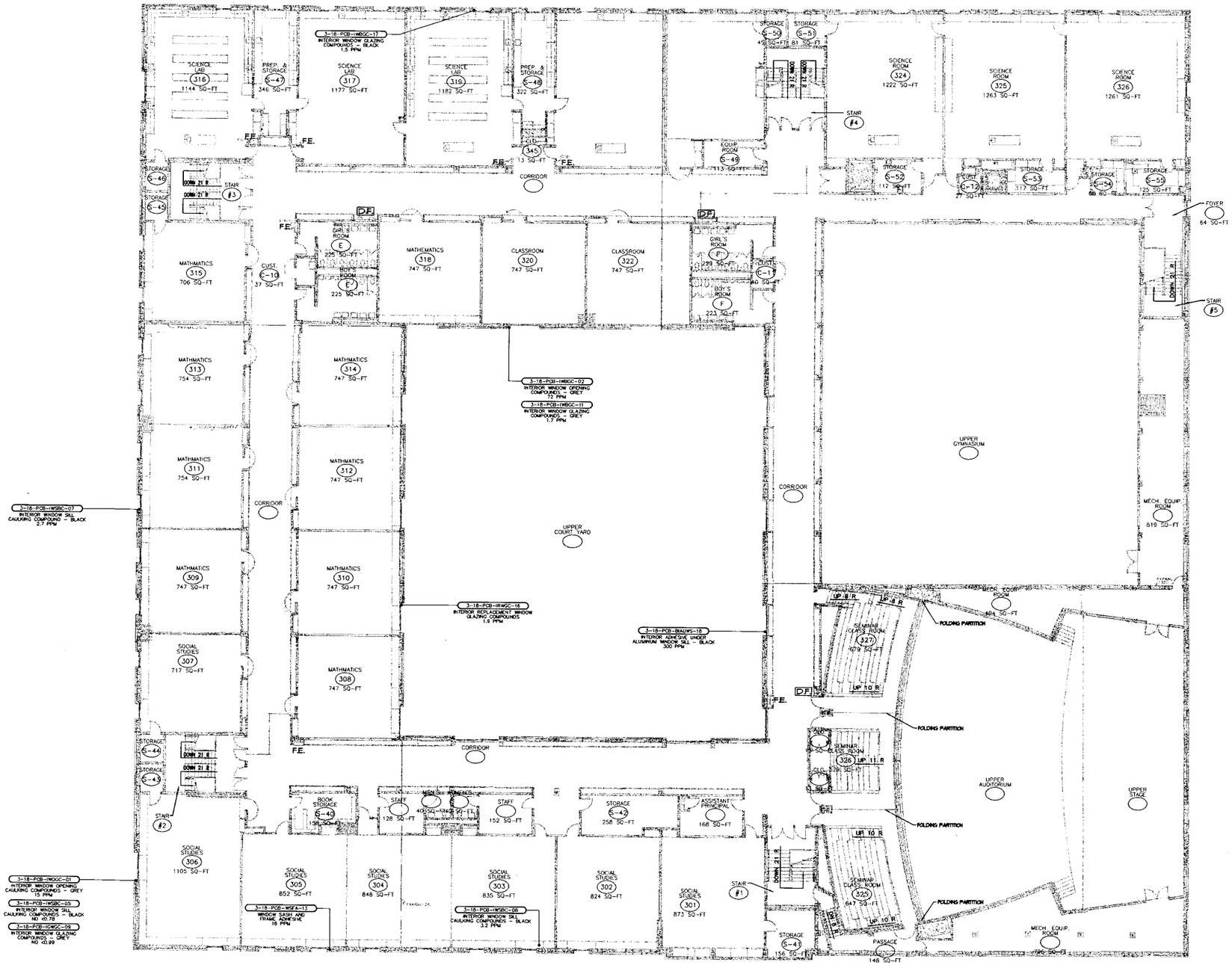
SOURCE PCB SAMPLE LOCATIONS
MAIN FLOOR
CLOONAN MIDDLE SCHOOL

11 WEST NORTH STREET
STAMFORD, CONNECTICUT

PROJ. No.: 20121389A2E
DATE: JULY 2013

FIG. 2-2



3 EXISTING SECOND FLOOR PLAN
3/32" = 1'-0"

OVERALL SECOND FLOOR GROSS SQUARE FOOTAGE = 61,068 G.S.F.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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SEAL

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DATUM: HORZ.: VERT.:
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GRAPHIC SCALE

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SOURCE PCB SAMPLE LOCATIONS
SECOND FLOOR

CLOONAN MIDDLE SCHOOL

11 WEST NORTH STREET STAMFORD, CONNECTICUT

PROJ. No.: 20121389A2E
DATE: JULY 2013

FIG. 2-3

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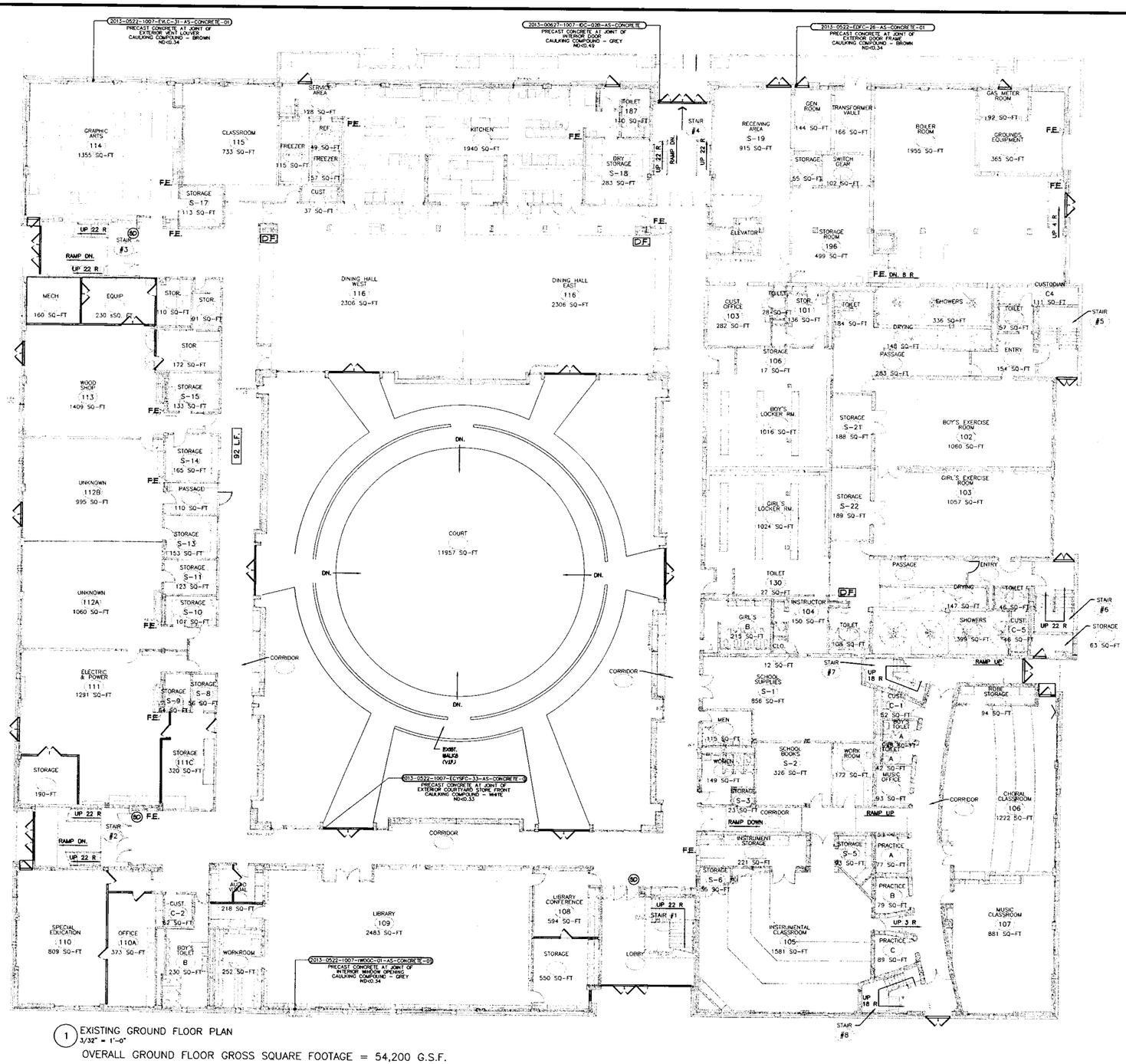

1 EXISTING GROUND FLOOR PLAN
3/32" = 1'-0"

OVERALL GROUND FLOOR GROSS SQUARE FOOTAGE = 54,200 G.S.F.

File Path: J:\DWG\P2012\1389A2E Environmental\Files\20121389A2E_FLR01_GRD.dwg Layout: FIG 2-4 Plotted: Fri, August 02, 2013 - 10:11 AM User: bhughes
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No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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SEAL

SEAL

SCALE:
HORZ.: 3/32" = 1'-0"
VERT.:
DATUM:
HORZ.:
VERT.:
3/32 0 3/32
GRAPHIC SCALE

FUSS & O'NEILL
EnviroScience, LLC
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com

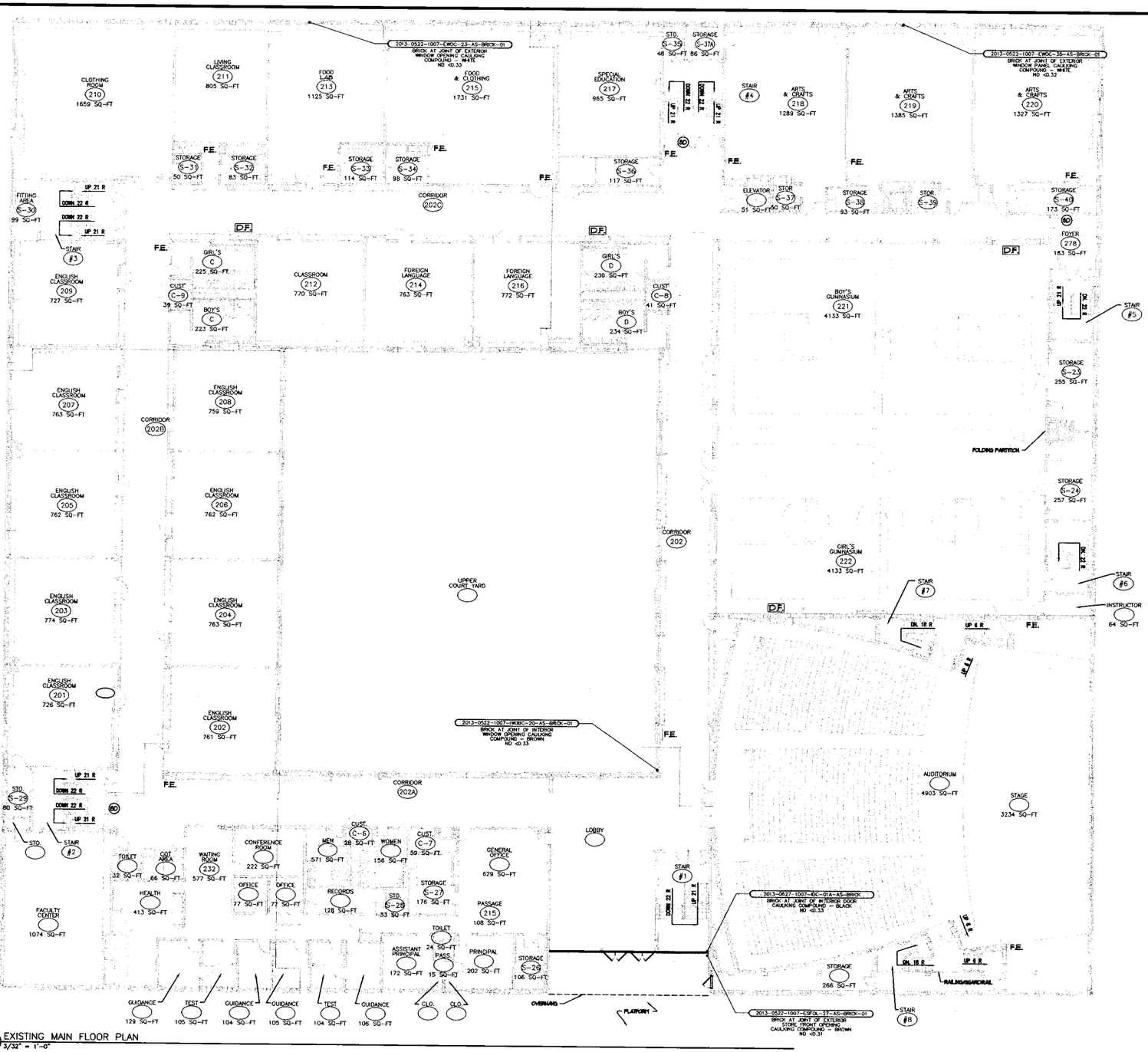
BBS ARCHITECTS, LANDSCAPE ARCHITECTS & ENGINEERS, PC

ADJACENT PCB SAMPLE LOCATIONS
GROUND FLOOR
CLOONAN MIDDLE SCHOOL

11 WEST NORTH STREET
STAMFORD, CONNECTICUT

PROJ. No.: 20121389A2E
DATE: JULY 2013

FIG. 2-4



2 EXISTING MAIN FLOOR PLAN
3/32" = 1'-0"

OVERALL MAIN FLOOR GROSS SQUARE FOOTAGE = 60,599 G.S.F.

No.	DATE	DESCRIPTION	XX/XX DESIGNER	XX REVIEWER
1.				

SEAL

SEAL

SCALE:
HORZ.: 3/32"= 1'-0"
VERT.:
DATUM:
HORZ.:
VERT.:
3/32 0 3/32
GRAPHIC SCALE

FUSS & O'NEILL
EnviroScience, LLC
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com

BBS ARCHITECTS, LANDSCAPE ARCHITECTS & ENGINEERS, PC

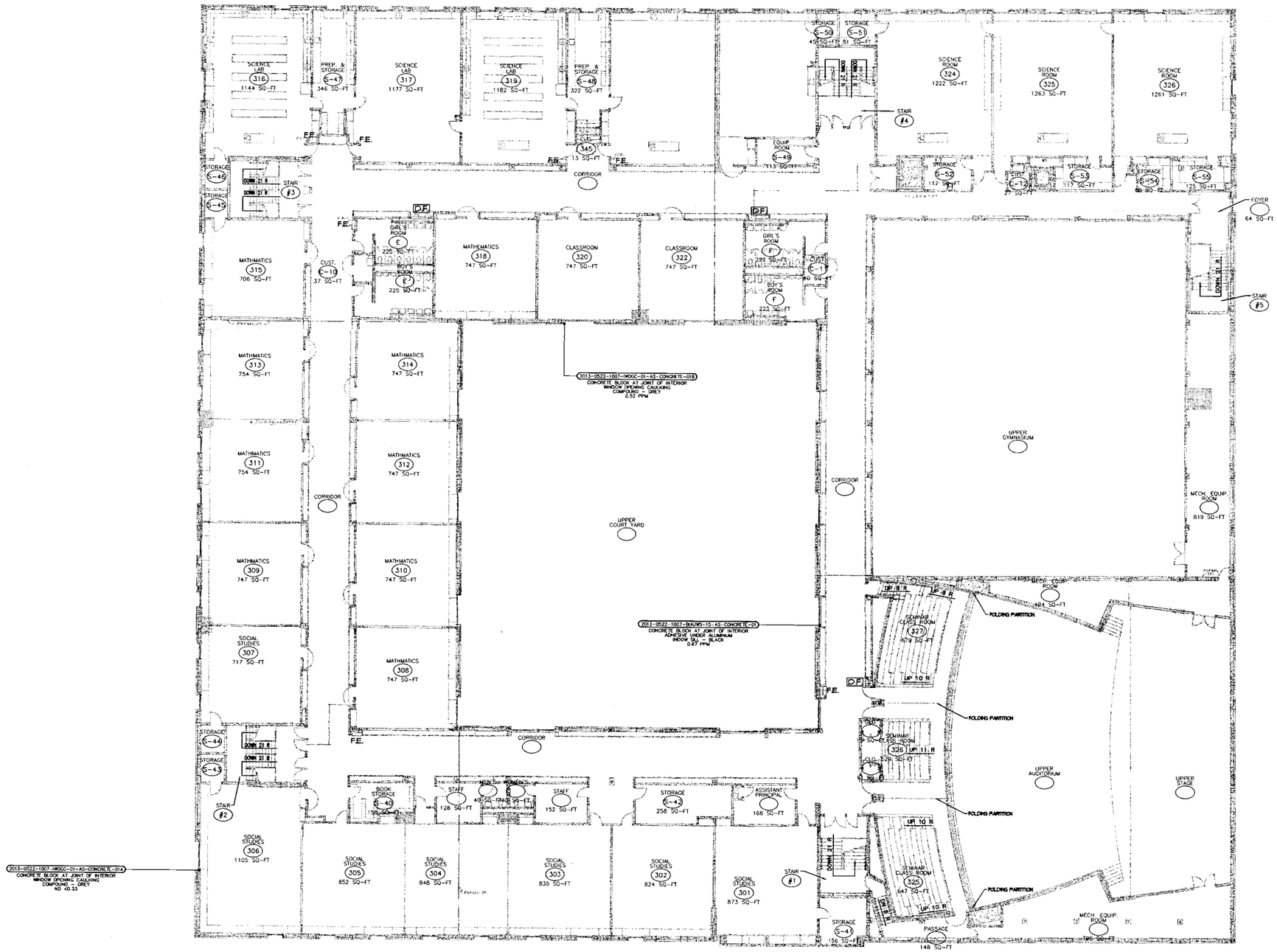
ADJACENT PCB SAMPLE LOCATIONS
MAIN FLOOR
CLOONAN MIDDLE SCHOOL

11 WEST NORTH STREET
STAMFORD, CONNECTICUT

PROJ. No.: 20121389A2E
DATE: JULY 2013

FIG. 2-5

File Path: J:\DWG\P2012\12389A2E\Environmental Plan\20121389A2E_FL01_MAIN.dwg Layout: FIG 2-5 Plotted: Thu, July 25, 2013 - 12:48 PM User: saxon
MS VIEW: LAYER STATE: Plotter: NONE CTB File: FO.STB



3 EXISTING SECOND FLOOR PLAN
3/32" = 1'-0"

OVERALL SECOND FLOOR GROSS SQUARE FOOTAGE = 61,068 G.S.F.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1			xx/xx	xx

SEAL

SEAL

SCALE
HORZ.: 3/32"= 1'-0"
VERT.:
DATUM:
HORZ.:
VERT.:
3/32 0 3/32
GRAPHIC SCALE

FUSS & O'NEILL
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146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860 646 2469
www.fando.com

BBS ARCHITECTS, LANDSCAPE ARCHITECTS & ENGINEERS, PC

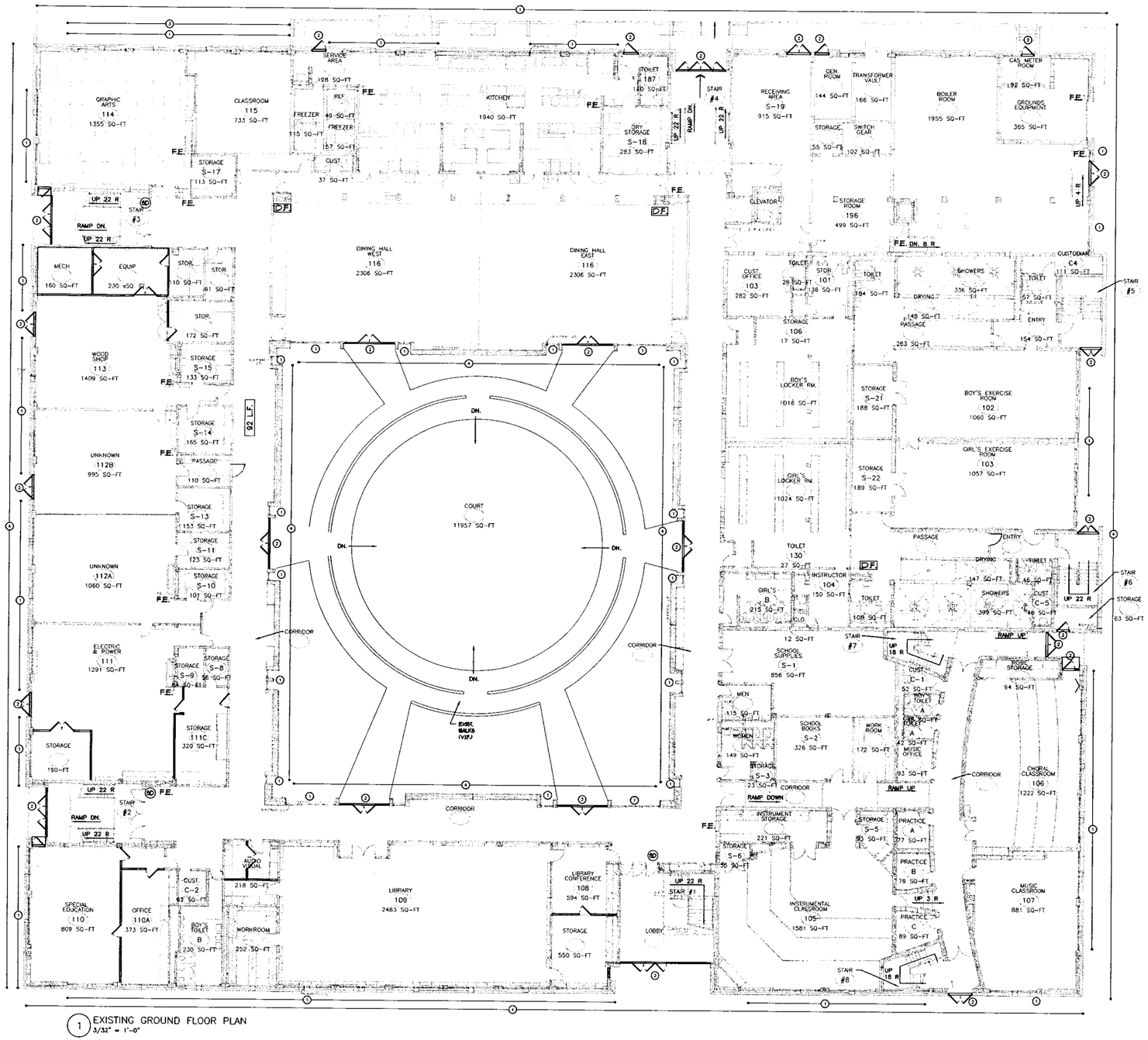
ADJACENT PCB SAMPLE LOCATIONS
SECOND FLOOR
CLOONAN MIDDLE SCHOOL

11 WEST NORTH STREET
STAMFORD, CONNECTICUT

PROJ. No.: 20121389A2E
DATE: JULY 2013

FIG. 2-6

File Path: J:\CIVIL\P2012\13894\2E\Environmental\Plan\20121389A2E_FL601_SECOND.dwg Layout: Fig 2-6 Plotted: Fri, August 02, 2013 - 10:32 AM User: bhughes
MS VIEW: LAYER STATE: Plotter: NONE CTB File: FO.STB



1 EXISTING GROUND FLOOR PLAN
3/32" = 1'-0"

OVERALL GROUND FLOOR GROSS SQUARE FOOTAGE = 54,200 G.S.F.

GENERAL NOTES

1. PCB ABATEMENT WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE PERFORMANCE BASED DISPOSAL PLAN CREATED FOR THE SITE. MATERIAL MAY CONTAIN REGULATED CONCENTRATIONS OF ASBESTOS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY MATERIALS THAT CONTAIN ASBESTOS AND REMOVE AND DISPOSE OF THE ACM/PCB MATERIALS IN ACCORDANCE WITH ALL FEDERAL AND STATE REGULATIONS.
2. THIS PROJECT INCLUDES MULTIPLE MOBILIZATIONS AND CONTAINMENTS.

PCB ABATEMENT NOTES

PCB BULK PRODUCT WASTE REMOVAL

PCB-01 REMOVAL AND OFF-SITE DISPOSAL OF INTERIOR WINDOW OPENING CAULKING COMPOUNDS – GREY COLORED, WINDOW SASH AND FRAME ADHESIVES, AND INTERIOR ADHESIVE UNDER ALUMINUM WINDOW SILLS – BLACK COLORED AS PCB BULK PRODUCT WASTE MIXED WITH ASBESTOS. INCLUDES REMOVAL AND DISPOSAL OF WINDOW FRAME AND WINDOW GLASS AS A WHOLE SYSTEM. INCLUDES REMOVAL AND DISPOSAL OF <50 PPM CONTAINING MATERIALS SUCH AS INTERIOR WINDOW GLAZING COMPOUNDS, INTERIOR WINDOW OPENING CAULKING COMPOUNDS – BROWN COLORED, INTERIOR WINDOW SILL CAULKING COMPOUNDS – BLACK COLORED, EXTERIOR WINDOW OPENING CAULKING COMPOUNDS – WHITE COLORED, AND EXTERIOR WINDOW PANELING CAULKING COMPOUNDS AS A WHOLE SYSTEM.

<50 PPM PCBS CONTAINING MATERIAL REMOVAL

PCB-02 REMOVAL AND OFF-SITE DISPOSAL OF EXTERIOR STORE FRONT OPENING CAULKING COMPOUNDS – BROWN COLORED, EXTERIOR STORE FRONT CAULKING COMPOUNDS – WHITE COLORED, EXTERIOR COURTYARD STORE FRONT CAULKING COMPOUNDS – WHITE COLORED, EXTERIOR DOOR FRAME CAULKING COMPOUNDS – BROWN COLORED, INTERIOR DOOR CAULKING COMPOUNDS – BLACK COLORED, AND INTERIOR DOOR CAULKING COMPOUNDS – GREY COLORED AS <50 PPM PCB WASTE MIXED WITH ASBESTOS. INCLUDES REMOVAL AND DISPOSAL OF STORE FRONT WINDOW SYSTEMS AND DOOR FRAMES AS A WHOLE SYSTEM.

PCB-03 REMOVAL AND OFF-SITE DISPOSAL OF EXTERIOR VENT LOUVER CAULKING COMPOUNDS – GREY COLORED AS <50 PPM PCB WASTE MIXED WITH ASBESTOS. INCLUDE CLEANING OF VENT FRAME SCHEDULED TO REMAIN.

PCB-04 REMOVAL AND OFF-SITE DISPOSAL OF EXTERIOR EXPANSION CAULKING COMPOUNDS – WHITE COLORED AS <50 PPM PCB WASTE.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1			XX/XX	XX

SEAL

SEAL

SCALE:
HORZ.: 3/32"= 1'-0"
VERT.:
DATUM:
HORZ.:
VERT.:
3/32 0 3/32
GRAPHIC SCALE

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EnviroScience, LLC
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com

BBS ARCHITECTS, LANDSCAPE ARCHITECTS & ENGINEERS, PC

PCB REMEDIATION LOCATIONS
GROUND FLOOR

CLOONAN MIDDLE SCHOOL

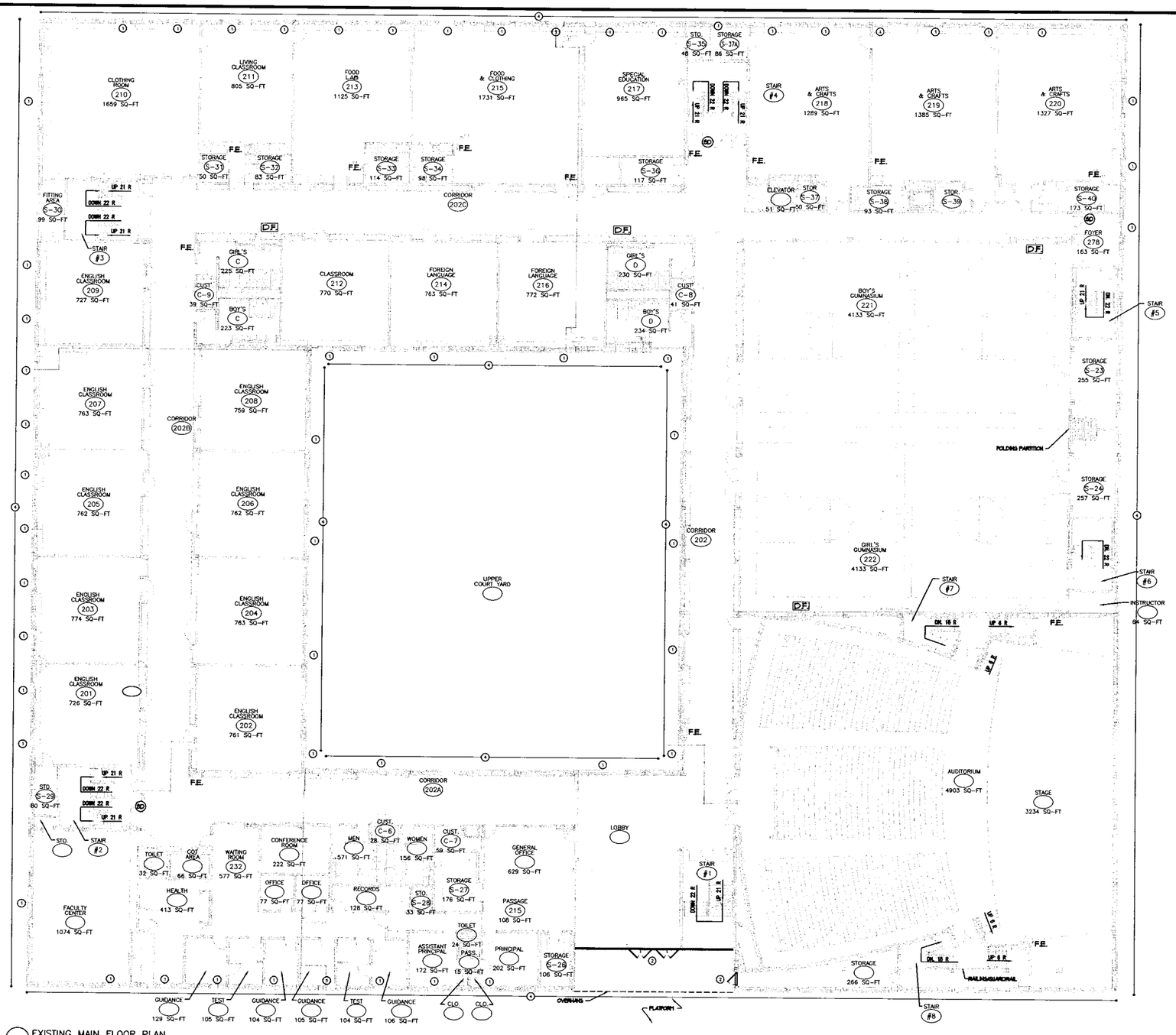
11 WEST NORTH STREET

STAMFORD, CONNECTICUT

PROJ. No.: 20121389A2E
DATE: JULY 2013

FIG. 3-1

File Path: J:\DWG\P2012\13\89A2E\Environmental\Plan\20121389A2E_FL801_GRD.dwg Layout: FIG 3-1 Plotted: Fri, August 02, 2013 - 10:11 AM User: bhughes
XG VIEW: LAYER STATE:
Plotter: NONE CTB File: FO.STB



2 EXISTING MAIN FLOOR PLAN
3/32" = 1'-0"

OVERALL MAIN FLOOR GROSS SQUARE FOOTAGE = 60,599 G.S.F.

GENERAL NOTES

1. PCB ABATEMENT WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE PERFORMANCE BASED DISPOSAL PLAN CREATED FOR THE SITE. MATERIAL MAY CONTAIN REGULATED CONCENTRATIONS OF ASBESTOS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY MATERIALS THAT CONTAIN ASBESTOS AND REMOVE AND DISPOSE OF THE ACM/PCB MATERIALS IN ACCORDANCE WITH ALL FEDERAL AND STATE REGULATIONS.
2. THIS PROJECT INCLUDES MULTIPLE MOBILIZATIONS AND CONTAINMENTS.

PCB ABATEMENT NOTES

PCB BULK PRODUCT WASTE REMOVAL

PCB-01 REMOVAL AND OFF-SITE DISPOSAL OF INTERIOR WINDOW OPENING CAULKING COMPOUNDS - GREY COLORED, WINDOW SASH AND FRAME ADHESIVES, AND INTERIOR ADHESIVE UNDER ALUMINUM WINDOW SILLS - BLACK COLORED AS PCB BULK PRODUCT WASTE MIXED WITH ASBESTOS. INCLUDES REMOVAL AND DISPOSAL OF WINDOW FRAME AND WINDOW GLASS AS A WHOLE SYSTEM. INCLUDES REMOVAL AND DISPOSAL OF <50 PPM CONTAINING MATERIALS SUCH AS INTERIOR WINDOW GLAZING COMPOUNDS, INTERIOR WINDOW OPENING CAULKING COMPOUNDS - BROWN COLORED, INTERIOR WINDOW SILL CAULKING COMPOUNDS - BLACK COLORED, EXTERIOR WINDOW OPENING CAULKING COMPOUNDS - WHITE COLORED, AND EXTERIOR WINDOW PANELING CAULKING COMPOUNDS AS A WHOLE SYSTEM.

<50 PPM PCBS CONTAINING MATERIAL REMOVAL

PCB-02 REMOVAL AND OFF-SITE DISPOSAL OF EXTERIOR STORE FRONT OPENING CAULKING COMPOUNDS - BROWN COLORED, EXTERIOR STORE FRONT CAULKING COMPOUNDS - WHITE COLORED, EXTERIOR COURTYARD STORE FRONT CAULKING COMPOUNDS - WHITE COLORED, EXTERIOR DOOR FRAME CAULKING COMPOUNDS - BROWN COLORED, INTERIOR DOOR CAULKING COMPOUNDS - BLACK COLORED, AND INTERIOR DOOR CAULKING COMPOUNDS - GREY COLORED AS <50 PPM PCB WASTE MIXED WITH ASBESTOS. INCLUDES REMOVAL AND DISPOSAL OF STORE FRONT WINDOW SYSTEMS AND DOOR FRAMES AS A WHOLE SYSTEM.

PCB-03 REMOVAL AND OFF-SITE DISPOSAL OF EXTERIOR VENT LOUVER CAULKING COMPOUNDS - GREY COLORED AS <50 PPM PCB WASTE MIXED WITH ASBESTOS. INCLUDE CLEANING OF VENT FRAME SCHEDULED TO REMAIN.

PCB-04 REMOVAL AND OFF-SITE DISPOSAL OF EXTERIOR EXPANSION CAULKING COMPOUNDS - WHITE COLORED AS <50 PPM PCB WASTE.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.			XX/XX	XX

SEAL

SEAL

SCALE:
HORZ.: 3/32"= 1'-0"
VERT.:
DATUM:
HORZ.:
VERT.:
3/32 0 3/32
GRAPHIC SCALE

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EnviroScience, LLC
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com

BBS ARCHITECTS, LANDSCAPE ARCHITECTS & ENGINEERS, PC

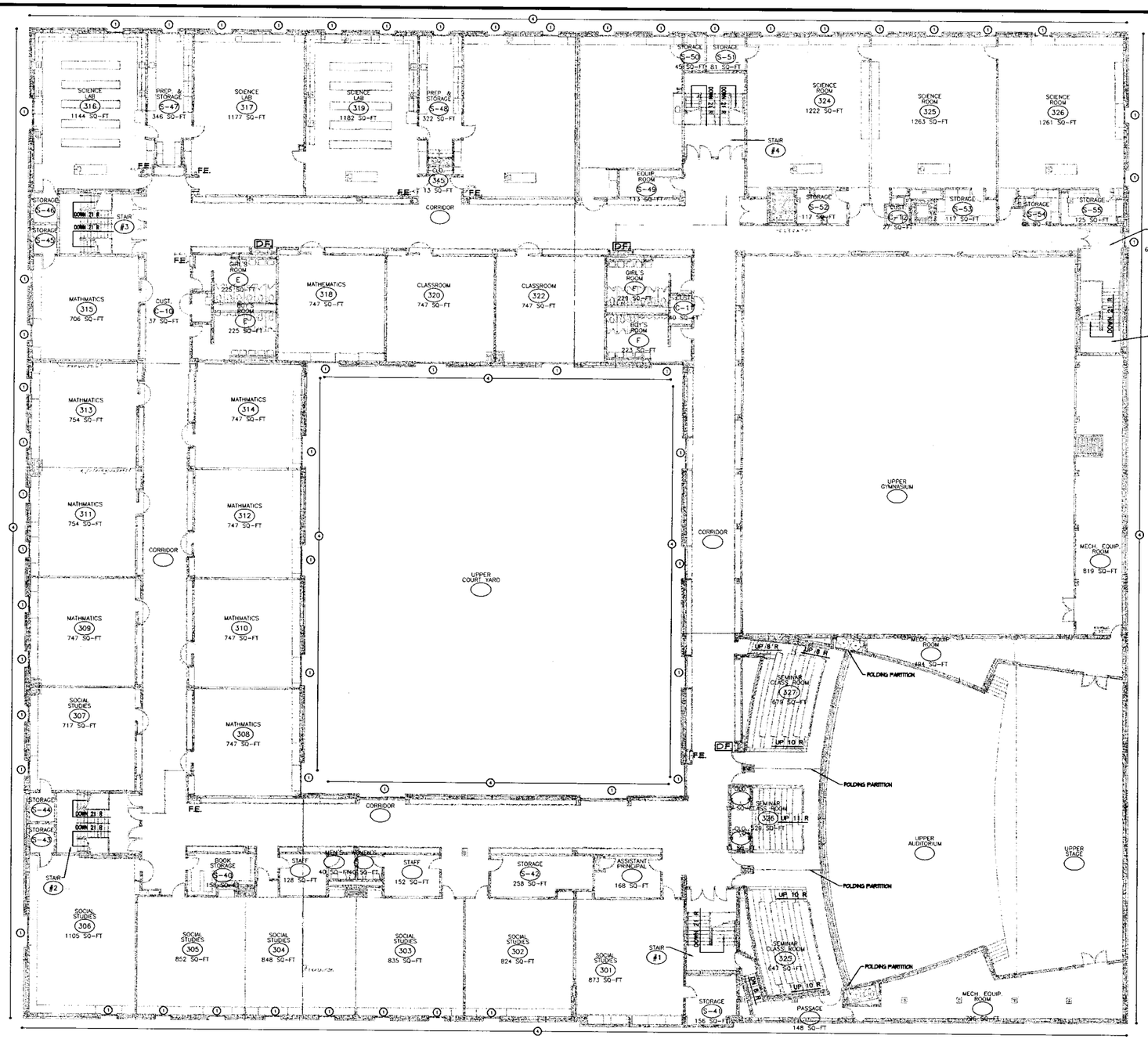
PCB REMEDIATION LOCATIONS
MAIN FLOOR
CLOONAN MIDDLE SCHOOL

11 WEST NORTH STREET STAMFORD, CONNECTICUT

PROJ. No.: 20121389A2E
DATE: JULY 2013

FIG. 3-2

File Path: J:\DWG\P20121389A2E\Environmental\Plan\20121389A2E_FLR01_MAIN.dwg Layout: FIG 3-2 Plotted: Fri, August 02, 2013 - 8:39 AM User: bhughes
Plotter: NONE CTB File: FIG STB
LAYER STATE:
MS VIEW



3 EXISTING SECOND FLOOR PLAN
3/32" = 1'-0"

OVERALL SECOND FLOOR GROSS SQUARE FOOTAGE = 61,068 G.S.F.

GENERAL NOTES

1. PCB ABATEMENT WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE PERFORMANCE BASED DISPOSAL PLAN CREATED FOR THE SITE. MATERIAL MAY CONTAIN REGULATED CONCENTRATIONS OF ASBESTOS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY MATERIALS THAT CONTAIN ASBESTOS AND REMOVE AND DISPOSE OF THE ACM/PCB MATERIALS IN ACCORDANCE WITH ALL FEDERAL AND STATE REGULATIONS.
2. THIS PROJECT INCLUDES MULTIPLE MOBILIZATIONS AND CONTAINMENTS.

PCB ABATEMENT NOTES

PCB BULK PRODUCT WASTE REMOVAL

PCB-01 REMOVAL AND OFF-SITE DISPOSAL OF INTERIOR WINDOW OPENING CAULKING COMPOUNDS – GREY COLORED, WINDOW SASH AND FRAME ADHESIVES, AND INTERIOR ADHESIVE UNDER ALUMINUM WINDOW SILLS – BLACK COLORED AS PCB BULK PRODUCT WASTE MIXED WITH ASBESTOS. INCLUDES REMOVAL AND DISPOSAL OF WINDOW FRAME AND WINDOW GLASS AS A WHOLE SYSTEM. INCLUDES REMOVAL AND DISPOSAL OF <50 PPM CONTAINING MATERIALS SUCH AS INTERIOR WINDOW GLAZING COMPOUNDS, INTERIOR WINDOW OPENING CAULKING COMPOUNDS – BROWN COLORED, INTERIOR WINDOW SILL CAULKING COMPOUNDS – BLACK COLORED, EXTERIOR WINDOW OPENING CAULKING COMPOUNDS – WHITE COLORED, AND EXTERIOR WINDOW PANELING CAULKING COMPOUNDS AS A WHOLE SYSTEM.

<50 PPM PCBS CONTAINING MATERIAL REMOVAL

PCB-02 REMOVAL AND OFF-SITE DISPOSAL OF EXTERIOR STORE FRONT OPENING CAULKING COMPOUNDS – BROWN COLORED, EXTERIOR STORE FRONT CAULKING COMPOUNDS – WHITE COLORED, EXTERIOR COURTYARD STORE FRONT CAULKING COMPOUNDS – WHITE COLORED, EXTERIOR DOOR FRAME CAULKING COMPOUNDS – BROWN COLORED, INTERIOR DOOR CAULKING COMPOUNDS – BLACK COLORED, AND INTERIOR DOOR CAULKING COMPOUNDS – GREY COLORED AS <50 PPM PCB WASTE MIXED WITH ASBESTOS. INCLUDES REMOVAL AND DISPOSAL OF STORE FRONT WINDOW SYSTEMS AND DOOR FRAMES AS A WHOLE SYSTEM.

PCB-03 REMOVAL AND OFF-SITE DISPOSAL OF EXTERIOR VENT LOUVER CAULKING COMPOUNDS – GREY COLORED AS <50 PPM PCB WASTE MIXED WITH ASBESTOS. INCLUDE CLEANING OF VENT FRAME SCHEDULED TO REMAIN.

PCB-04 REMOVAL AND OFF-SITE DISPOSAL OF EXTERIOR EXPANSION CAULKING COMPOUNDS – WHITE COLORED AS <50 PPM PCB WASTE.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1			xx/xx	xx

SEAL

SEAL

SCALE:
HORZ.: 3/32"= 1'-0"
VERT.:
DATUM
HORZ.:
VERT.:
3/32 0 3/32
GRAPHIC SCALE

FUSS & O'NEILL
EnviroScience, LLC
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com

BBS ARCHITECTS, LANDSCAPE ARCHITECTS & ENGINEERS, PC

PCB REMEDIATION LOCATIONS
SECOND FLOOR
CLOONAN MIDDLE SCHOOL

11 WEST NORTH STREET
STAMFORD, CONNECTICUT

PROJ. No. 20121389A2E
DATE: JULY 2013

FIG. 3-3

File Path: J:\DWG\P2012\1389A2E\Environmental\Plan\20121389A2E_FLR01_SECOND.dwg Layout: FIG 3-3 Plotted: Fri, August 02, 2013 - 10:33 AM User: bhughes
MS VIEW
LAYER.STATE:
Plotter: NONE CTB File: FO.STB

FUSS & O'NEILL
EnviroScience, LLC

Appendix A

Laboratory Analysis and Chain of Custody
Source Materials - Bulk

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49768

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWOGC-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	JP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	3700	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	3700	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	3700	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	3700	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	*	3700	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	*	3700	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	ND	3700	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	3700	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	3700	ug/Kg	03/25/13	AW	3540C/8082
Total PCBs	15000	3700	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	119		%	03/25/13	AW	30 - 150 %
% TCMX	120		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10 Phoenix I.D.: BD49768
Client ID: 3-18-PCB-IWOGC-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

* For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49769

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWOGC-02

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	JP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	9200	ug/Kg	03/22/13	AW	3540C/8082
PCB-1221	ND	9200	ug/Kg	03/22/13	AW	3540C/8082
PCB-1232	ND	9200	ug/Kg	03/22/13	AW	3540C/8082
PCB-1242	ND	9200	ug/Kg	03/22/13	AW	3540C/8082
PCB-1248	ND	9200	ug/Kg	03/22/13	AW	3540C/8082
PCB-1254	72000	9200	ug/Kg	03/22/13	AW	3540C/8082
PCB-1260	ND	9200	ug/Kg	03/22/13	AW	3540C/8082
PCB-1262	ND	9200	ug/Kg	03/22/13	AW	3540C/8082
PCB-1268	ND	9200	ug/Kg	03/22/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	03/22/13	AW	30 - 150 %
% TCMX	Diluted Out		%	03/22/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWOGC-02

Phoenix I.D.: BD49769

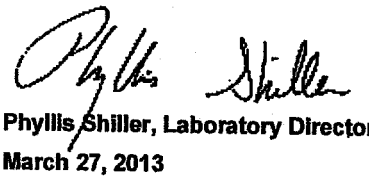
Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49770

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWOGC-03

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	JP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	890	ug/Kg	03/22/13	AW	3540C/8082
PCB-1221	ND	890	ug/Kg	03/22/13	AW	3540C/8082
PCB-1232	ND	890	ug/Kg	03/22/13	AW	3540C/8082
PCB-1242	ND	890	ug/Kg	03/22/13	AW	3540C/8082
PCB-1248	ND	890	ug/Kg	03/22/13	AW	3540C/8082
PCB-1254	7500	890	ug/Kg	03/22/13	AW	3540C/8082
PCB-1260	ND	890	ug/Kg	03/22/13	AW	3540C/8082
PCB-1262	ND	890	ug/Kg	03/22/13	AW	3540C/8082
PCB-1268	ND	890	ug/Kg	03/22/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	107		%	03/22/13	AW	30 - 150 %
% TCMX	98		%	03/22/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWOGC-03

Phoenix I.D.: BD49770

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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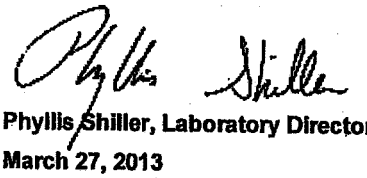

Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49771

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWOGC-04

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	JP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1221	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1232	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1242	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1248	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1254	30000	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1260	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1262	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1268	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	114		%	03/22/13	AW	30 - 150 %
% TCMX	128		%	03/22/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWOGC-04

Phoenix I.D.: BD49771

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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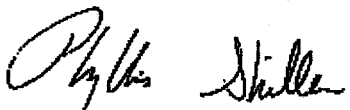

Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49772

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWSBC-05

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	JP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	780	ug/Kg	03/22/13	AW	3540C/8082
PCB-1221	ND	780	ug/Kg	03/22/13	AW	3540C/8082
PCB-1232	ND	780	ug/Kg	03/22/13	AW	3540C/8082
PCB-1242	ND	780	ug/Kg	03/22/13	AW	3540C/8082
PCB-1248	ND	780	ug/Kg	03/22/13	AW	3540C/8082
PCB-1254	ND	780	ug/Kg	03/22/13	AW	3540C/8082
PCB-1260	ND	780	ug/Kg	03/22/13	AW	3540C/8082
PCB-1262	ND	780	ug/Kg	03/22/13	AW	3540C/8082
PCB-1268	ND	780	ug/Kg	03/22/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	111		%	03/22/13	AW	30 - 150 %
% TCMX	115		%	03/22/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWSBC-05

Phoenix I.D.: BD49772

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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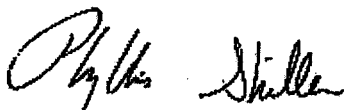

Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49773

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWSBC-06

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	JP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	780	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	780	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	780	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	780	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	780	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	ND	780	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	ND	780	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	780	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	780	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	116		%	03/25/13	AW	30 - 150 %
% TCMX	95		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWSBC-06

Phoenix I.D.: BD49773

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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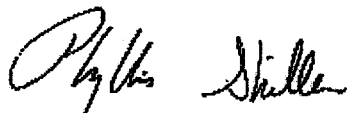

Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49774

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWSBC-07

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	JP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1221	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1232	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1242	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1248	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1254	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1260	2700	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1262	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1268	ND	810	ug/Kg	03/22/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	95		%	03/22/13	AW	30 - 150 %
% TCMX	94		%	03/22/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWSBC-07

Phoenix I.D.: BD49774

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Environmental Laboratories, Inc.
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Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49775

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWSBC-08

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	JP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1221	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1232	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1242	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1248	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1254	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1260	3200	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1262	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1268	ND	800	ug/Kg	03/22/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	96		%	03/22/13	AW	30 - 150 %
% TCMX	93		%	03/22/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWSBC-08

Phoenix I.D.: BD49775

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49776

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IGWGC-09

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	JP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	990	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	990	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	990	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	990	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	990	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	ND	990	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	ND	990	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	990	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	990	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	102		%	03/25/13	AW	30 - 150 %
% TCMX	87		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IGWGC-09

Phoenix I.D.: BD49776

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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March 27, 2013
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Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49777

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IGWGC-10

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	760	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	760	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	760	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	760	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	760	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	ND	760	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	ND	760	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	760	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	760	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	104		%	03/25/13	AW	30 - 150 %
% TCMX	90		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IGWGC-10

Phoenix I.D.: BD49777

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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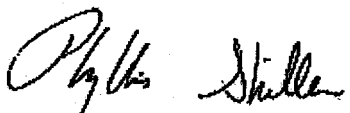

Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

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Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49778

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IGWGC-11

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	810	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	810	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	810	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	810	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	810	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	ND	810	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	1700	810	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	810	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	810	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	77		%	03/25/13	AW	30 - 150 %
% TCMX	69		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IGWGC-11

Phoenix I.D.: BD49778

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49779

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IGWGC-12

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1221	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1232	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1242	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1248	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1254	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1260	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1262	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1268	ND	800	ug/Kg	03/22/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	98		%	03/22/13	AW	30 - 150 %
% TCMX	92		%	03/22/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10 Phoenix I.D.: BD49779
Client ID: 3-18-PCB-IGWGC-12

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49780

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-WSFA-13

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	4000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	4000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	4000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	4000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	4000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	*	4000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	*	4000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	4000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	4000	ug/Kg	03/25/13	AW	3540C/8082
Total PCBs	16000	4000	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	99		%	03/25/13	AW	30 - 150 %
% TCMX	74		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-WSFA-13

Phoenix I.D.: BD49780

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

* For PCBs, in order to reach the desired RL, multiple cleanup steps were performed. The extract was cleaned up with a combination of sulfuric acid, potassium permanganate, copper powder and additional florisil.

* For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1254 and 1260.

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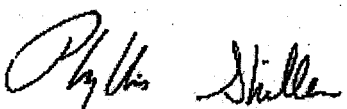

Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

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Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49781

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-WSFA-14

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	430	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	430	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	430	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	430	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	430	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	*	430	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	*	430	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	430	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	430	ug/Kg	03/25/13	AW	3540C/8082
Total PCBs	5600	430	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	95		%	03/25/13	AW	30 - 150 %
% TCMX	64		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-WSFA-14

Phoenix I.D.: BD49781

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

* For PCBs, in order to reach the desired RL, multiple cleanup steps were performed. The extract was cleaned up with a combination of sulfuric acid, potassium permanganate, copper powder and additional florisil.

* For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1254 and 1260.

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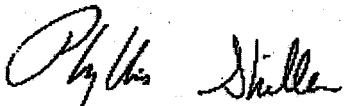

Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Analysis Report

March 27, 2013

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Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49782

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-WSFA-15

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	38000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	38000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	38000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	38000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	38000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	ND	38000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	450000	38000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	38000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	38000	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	03/25/13	AW	30 - 150 %
% TCMX	Diluted Out		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-WSFA-15

Phoenix I.D.: BD49782

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

* For PCBs, in order to reach the desired RL, multiple cleanup steps were performed. The extract was cleaned up with a combination of sulfuric acid, potassium permanganate, copper powder and additional florisil.

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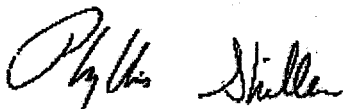

Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Environmental Laboratories, Inc.
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Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49783

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IRWGC-16

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	590	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	590	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	590	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	590	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	590	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	ND	590	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	1900	590	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	590	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	590	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	83		%	03/25/13	AW	30 - 150 %
% TCMX	76		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10 Phoenix I.D.: BD49783
Client ID: 3-18-PCB-IRWGC-16

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Bristol, CT 06010

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Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49784

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWBGC-17

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	870	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	870	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	870	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	870	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	870	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	1500	870	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	ND	870	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	870	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	870	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	56		%	03/25/13	AW	30 - 150 %
% TCMX	40		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWBGC-17

Phoenix I.D.: BD49784

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

* For PCBs, in order to reach the desired RL, multiple cleanup steps were performed. The extract was cleaned up with a combination of sulfuric acid, potassium permanganate, copper powder and additional florisil.

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Phyllis Shiller, Laboratory Director
March 27, 2013
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Analysis Report

March 27, 2013

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Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49785

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-BIAUWS-18

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	38000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	38000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	38000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	38000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	38000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	ND	38000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	*	38000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	38000	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	38000	ug/Kg	03/25/13	AW	3540C/8082
Total PCBs	300000	38000	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	03/25/13	AW	30 - 150 %
% TCMX	Diluted Out		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-BIAUWS-18

Phoenix I.D.: BD49785

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

* For PCBs, in order to reach the desired RL, multiple cleanup steps were performed. The extract was cleaned up with a combination of sulfuric acid, potassium permanganate, copper powder and additional florisil.

* For PCBs, as per section 11.9.3, when weathering of PCBs is present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles aroclor 1260.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49786

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWOBC-19

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	2400	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	2400	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	2400	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	2400	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	2400	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	9800	2400	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	ND	2400	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	2400	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	2400	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	109		%	03/25/13	AW	30 - 150 %
% TCMX	92		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10 Phoenix I.D.: BD49786
Client ID: 3-18-PCB-IWOBC-19

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/18/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49768
Phoenix ID: BD49787

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWOBC-20

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1221	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1232	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1242	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1248	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1254	27000	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1260	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1262	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1268	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	119		%	03/22/13	AW	30 - 150 %
% TCMX	117		%	03/22/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-18-PCB-IWOBC-20

Phoenix I.D.: BD49787

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

March 27, 2013

QA/QC Data

SDG I.D.: GBD49768

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 224019, QC Sample No: BD49406 (BD49768, BD49769, BD49770, BD49771, BD49772, BD49773, BD49774, BD49775, BD49776)									
Polychlorinated Biphenyls - Solid									
PCB-1016	ND	90	89	1.1				40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	93	94	1.1				40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	90	89	89	0.0				30 - 150	30
% TCMX (Surrogate Rec)	82	83	82	1.2				30 - 150	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 224112, QC Sample No: BD49777 (BD49777, BD49778, BD49779, BD49780, BD49781, BD49782, BD49783, BD49784, BD49785, BD49786, BD49787)									
Polychlorinated Biphenyls - Solid									
PCB-1016	ND	78	90	14.3				40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	82	85	3.6				40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	91	86	87	1.2				30 - 150	30
% TCMX (Surrogate Rec)	84	82	88	7.1				30 - 150	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
March 27, 2013

Requested Criteria: None

State: CT

Sample Criteria Exceedences Report

GBD49768 - EAGLEENV

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

10°W/C+IP

CHAIN OF CUSTODY RECORD

Temp Pg of

PHOENIX *Environmental Laboratories, Inc.*

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Data Delivery:
☐ Fax #: _____
☐ Email: _____

Customer: EAGLE ENVIRONMENTAL, INC.
Address: 531 N. MAIN STREET
BRISTOL, CT 06010

Project: JC BRODERICK; CLOONAN MS; 13-003.10
Report to: EAGLE
Invoice to: ↓

Project P.O: _____
Phone #: 860-589-8257
Fax #: _____

Client Sample - Information - Identification

Sampler's Signature: _____ Date: 3/20/13

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Analysis Request: EPA 8082
49768	3-18-PCB-IWBGC-01	S	3/18	PM	X
49769	3-18-PCB-IWBGC-02				X
49770	3-18-PCB-IWBGC-03				X
49771	3-18-PCB-IWBGC-04				X
49772	3-18-PCB-IWBBC-05				X
49773	3-18-PCB-IWSBC-06				X
49774	3-18-PCB-IWSBC-07				X
49775	3-18-PCB-IWSBC-08				X
49776	3-18-PCB-IGWBC-09				X
49777	3-18-PCB-IGWBC-10				X
49778	3-18-PCB-IGWBC-11				X
49779	3-18-PCB-IGWBC-12	↓	↓	↓	X

Soil VOA Vials [ ] methanol [ ] H2O
GL Soil container ( ) oz
GL Soil container ( ) oz
40 ml VOA Vial [ ] As is [ ] HCl
GL Amber 1000ml [ ] As is [ ] H2SO4
PL As is [ ] 250ml [ ] 500ml [ ] 1000ml
PL H2SO4 [ ] 250ml
PL HNO3 250ml
PL NaOH 250ml
Bacteria Bottle

Relinquished by:	Accepted by:	Date:	Time:
_____	_____	3/21/13	13:00
_____	CourierDirect	3/21/13	1520

Comments, Special Requirements or Regulations:

- SOXLET EXTRACTION
- RL < 1.0 PPM

Turnaround:
☐ 1 Day*
☐ 2 Days*
☒ 3 Days*
☐ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☐ RCP Cert
☐ GW Protection
☐ SW Protection
☐ GA Mobility
☐ GB Mobility
☐ Residential DEC
☐ I/C DEC
☐ Other

MA
☐ MCP Certification
☐ GW-1
☐ GW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ MWRA eSMART
☐ Other

State where samples were collected: CT

Data Format
☐ Excel
☐ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☐ Phoenix Std Report
☐ Other

* SURCHARGE APPLIES

10°W/C+IP

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Temp Pg of

Data Delivery:
☐ Fax #: _____
☐ Email: _____

Customer: EAGLE ENVIRONMENTAL, INC.
Address: 531 N. MAIN ST. O'
BRISTOL, CT 06010

Project: JC BROERICK; CLEANUP NS; 13-053.10
Report to: EAGLE
Invoice to: ↓

Project P.O: _____
Phone #: 860-589-8257
Fax #: _____

Client Sample - Information - Identification

Sampler's Signature: _____ Date: 3/18/13

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other

Analysis Request: EPA METHOD 8082

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( ) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As Is [ ] HCl	GL Amber 1000ml [ ] As Is [ ] H2SO4	PL As Is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml [ ] 1000ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
49780	3-18-PCB-WSFA-13	S	3/18	PM	X									
49781	3-18-PCB-WSFA-14				X									
49782	3-18-PCB-WSFA-15				X									
49783	3-18-PCB-IWBGC-16				X									
49784	3-18-PCB-IWBGC-17				X									
49785	3-18-PCB-BIAUWS-18				X									
49786	3-18-PCB-IWBGC-19				X									
49787	3-18-PCB-IWBGC-20	↓	↓	↓	X									
TB														

Relinquished by:	Accepted by:	Date:	Time:
_____	_____	3/21/13	17:00
_____	_____	3/21/13	1520

Comments, Special Requirements or Regulations:
* SOXLET EXTRACTION
- RL < 1.0 PPM

Turnaround:
☐ 1 Day*
☐ 2 Days*
☒ 3 Days*
☐ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☐ RCP Cert
☐ GW Protection
☐ SW Protection
☐ GA Mobility
☐ GB Mobility
☐ Residential DEC
☐ I/C DEC
☐ Other

MA
☐ MCP Certification
☐ GW-1
☐ GW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ MWRA eSMART
☐ Other

Data Format
☐ Excel
☐ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☐ Phoenix Std Report
☐ Other
* SURCHARGE APPLIES

State where samples were collected: CT

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/19/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49788
Phoenix ID: BD49788

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-EWOC-21

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	*	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	*	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	740	ug/Kg	03/25/13	AW	3540C/8082
Total PCBs	3500	740	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	98		%	03/25/13	AW	30 - 150 %
% TCMX	85		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-EWOC-21

Phoenix I.D.: BD49788

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

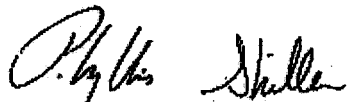
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

* For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1254 and 1260.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/19/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49788
Phoenix ID: BD49789

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-EWOC-22

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	690	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	690	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	690	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	690	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	690	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	3000	690	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	ND	690	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	690	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	690	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	91		%	03/25/13	AW	30 - 150 %
% TCMX	81		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10 Phoenix I.D.: BD49789
Client ID: 3-19-PCB-EWOC-22

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/19/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49788
Phoenix ID: BD49790

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-EWOC-23

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1221	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1232	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1242	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1248	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1254	20000	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1260	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1262	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1268	ND	3800	ug/Kg	03/22/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	121		%	03/22/13	AW	30 - 150 %
% TCMX	113		%	03/22/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10 Phoenix I.D.: BD49790
Client ID: 3-19-PCB-EWOC-23

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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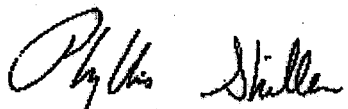


Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/19/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49788
Phoenix ID: BD49791

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-EDFC-24

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1221	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1232	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1242	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1248	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1254	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1260	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1262	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1268	ND	810	ug/Kg	03/22/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	100		%	03/22/13	AW	30 - 150 %
% TCMX	94		%	03/22/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10 Phoenix I.D.: BD49791
Client ID: 3-19-PCB-EDFC-24

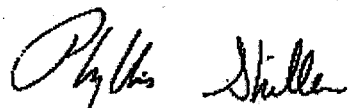
Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/19/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49788
Phoenix ID: BD49792

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-EDFC-25

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	500	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	500	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	500	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	500	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	500	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	ND	500	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	ND	500	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	500	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	500	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	80		%	03/25/13	AW	30 - 150 %
% TCMX	66		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-EDFC-25

Phoenix I.D.: BD49792

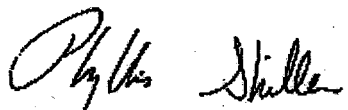
Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/19/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49788
Phoenix ID: BD49793

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-EDFC-26

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	650	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	650	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	650	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	650	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	650	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	2200	650	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	ND	650	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	650	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	650	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	87		%	03/25/13	AW	30 - 150 %
% TCMX	78		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10 Phoenix I.D.: BD49793
Client ID: 3-19-PCB-EDFC-26

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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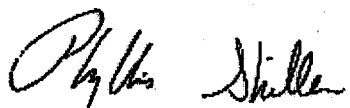

Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/19/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49788
Phoenix ID: BD49794

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-ESFOC-27

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	*	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	*	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	740	ug/Kg	03/25/13	AW	3540C/8082
Total PCBs	3000	740	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	102		%	03/25/13	AW	30 - 150 %
% TCMX	85		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-ESFOC-27

Phoenix I.D.: BD49794

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

* For PCBs, as per section 11.9.3, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1254 and 1260.

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March 27, 2013
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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/19/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49788
Phoenix ID: BD49795

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-ESFOC-28

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	470	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	470	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	470	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	470	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	470	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	ND	470	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	ND	470	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	470	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	470	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	85		%	03/25/13	AW	30 - 150 %
% TCMX	73		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-ESFOC-28

Phoenix I.D.: BD49795

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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March 27, 2013
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Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/19/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49788
Phoenix ID: BD49796

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-ESFOC-29

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	940	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	940	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	940	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	940	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	940	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	ND	940	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	2600	940	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	940	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	940	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	94		%	03/25/13	AW	30 - 150 %
% TCMX	75		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10 Phoenix I.D.: BD49796
Client ID: 3-19-PCB-ESFOC-29

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/19/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49788
Phoenix ID: BD49797

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-ESFCCC-30

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	BP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	740	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	740	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	98		%	03/25/13	AW	30 - 150 %
% TCMX	81		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-ESFCCC-30

Phoenix I.D.: BD49797

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

* For PCBs, in order to reach the desired RL, multiple cleanup steps were performed. The extract was cleaned up with a combination of sulfuric acid, potassium permanganate, copper powder and additional florisil.

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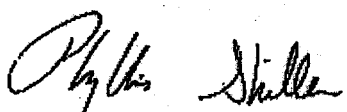

Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/19/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49788
Phoenix ID: BD49798

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-EVLC-31

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	BP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	820	ug/Kg	03/25/13	AW	3540C/8082
PCB-1221	ND	820	ug/Kg	03/25/13	AW	3540C/8082
PCB-1232	ND	820	ug/Kg	03/25/13	AW	3540C/8082
PCB-1242	ND	820	ug/Kg	03/25/13	AW	3540C/8082
PCB-1248	ND	820	ug/Kg	03/25/13	AW	3540C/8082
PCB-1254	1200	820	ug/Kg	03/25/13	AW	3540C/8082
PCB-1260	ND	820	ug/Kg	03/25/13	AW	3540C/8082
PCB-1262	ND	820	ug/Kg	03/25/13	AW	3540C/8082
PCB-1268	ND	820	ug/Kg	03/25/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	98		%	03/25/13	AW	30 - 150 %
% TCMX	93		%	03/25/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10 Phoenix I.D.: BD49798
Client ID: 3-19-PCB-EVLC-31

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/19/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49788
Phoenix ID: BD49799

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-ECYSFC-32

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	BP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1221	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1232	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1242	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1248	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1254	1400	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1260	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1262	ND	810	ug/Kg	03/22/13	AW	3540C/8082
PCB-1268	ND	810	ug/Kg	03/22/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	115		%	03/22/13	AW	30 - 150 %
% TCMX	122		%	03/22/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10 Phoenix I.D.: BD49799
Client ID: 3-19-PCB-ECYSFC-32

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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March 27, 2013
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Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/19/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49788
Phoenix ID: BD49800

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-ECYSFC-33

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	BP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1221	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1232	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1242	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1248	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1254	1500	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1260	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1262	ND	800	ug/Kg	03/22/13	AW	3540C/8082
PCB-1268	ND	800	ug/Kg	03/22/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	104		%	03/22/13	AW	30 - 150 %
% TCMX	106		%	03/22/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10 Phoenix I.D.: BD49800
Client ID: 3-19-PCB-ECYSFC-33

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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March 27, 2013
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Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/19/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49788
Phoenix ID: BD49801

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-EWPC-34

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	BP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	790	ug/Kg	03/22/13	AW	3540C/8082
PCB-1221	ND	790	ug/Kg	03/22/13	AW	3540C/8082
PCB-1232	ND	790	ug/Kg	03/22/13	AW	3540C/8082
PCB-1242	ND	790	ug/Kg	03/22/13	AW	3540C/8082
PCB-1248	ND	790	ug/Kg	03/22/13	AW	3540C/8082
PCB-1254	830	790	ug/Kg	03/22/13	AW	3540C/8082
PCB-1260	ND	790	ug/Kg	03/22/13	AW	3540C/8082
PCB-1262	ND	790	ug/Kg	03/22/13	AW	3540C/8082
PCB-1268	ND	790	ug/Kg	03/22/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	86		%	03/22/13	AW	30 - 150 %
% TCMX	92		%	03/22/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10 Phoenix I.D.: BD49801
Client ID: 3-19-PCB-EWPC-34

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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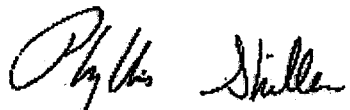

Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Analysis Report

March 27, 2013

FOR: Attn: Mr. Peter Folino
Eagle Environmental Inc.
531 North Main Street
Bristol, CT 06010

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		03/19/13	0:00
Location Code:	EAGLEENV	Received by:	SW	03/21/13	15:20
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBD49788
Phoenix ID: BD49802

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-EWPC-35

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	03/21/13		E160.3
Caulk Extraction for PCB	Completed			03/21/13	BP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	820	ug/Kg	03/22/13	AW	3540C/8082
PCB-1221	ND	820	ug/Kg	03/22/13	AW	3540C/8082
PCB-1232	ND	820	ug/Kg	03/22/13	AW	3540C/8082
PCB-1242	ND	820	ug/Kg	03/22/13	AW	3540C/8082
PCB-1248	ND	820	ug/Kg	03/22/13	AW	3540C/8082
PCB-1254	1000	820	ug/Kg	03/22/13	AW	3540C/8082
PCB-1260	ND	820	ug/Kg	03/22/13	AW	3540C/8082
PCB-1262	ND	820	ug/Kg	03/22/13	AW	3540C/8082
PCB-1268	ND	820	ug/Kg	03/22/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	104		%	03/22/13	AW	30 - 150 %
% TCMX	102		%	03/22/13	AW	30 - 150 %

Project ID: JC BRODERICK CLOONAN MS 13.053.10
Client ID: 3-19-PCB-EWPC-35

Phoenix I.D.: BD49802

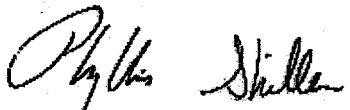
Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director
March 27, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

March 27, 2013

QA/QC Data

SDG I.D.: GBD49788

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 224112, QC Sample No: BD49777 (BD49788, BD49789, BD49790, BD49791, BD49792, BD49793, BD49794, BD49795, BD49796)									
Polychlorinated Biphenyls - Solid									
PCB-1016	ND	78	90	14.3				40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	82	85	3.6				40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	91	86	87	1.2				30 - 150	30
% TCMX (Surrogate Rec)	84	82	88	7.1				30 - 150	30
Comment:									
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.									
QA/QC Batch 224113, QC Sample No: BD49797 (BD49797, BD49798, BD49799, BD49800, BD49801, BD49802)									
Polychlorinated Biphenyls - Solid									
PCB-1016	ND	71	77	8.1				40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	82	85	3.6				40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	74	77	78	1.3				30 - 150	30
% TCMX (Surrogate Rec)	54	74	79	6.5				30 - 150	30
Comment:									
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.									

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
March 27, 2013

Requested Criteria: None

State: CT

Sample Criteria Exceedences Report

GBD49788 - EAGLEENV

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Cooler: Yes ☒ No ☐
Coolant: IPK ☒ ICE ☐ N ☐

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Temp 1.0 °C Pg 1 of

Data Delivery:
☐ Fax #:
☐ Email:

Customer: EAGLE ENVIRONMENTAL, Inc
Address: 531 N. MAIN STREET
BRISTOL, CT 06010

Project: JC BROOKS; CLOONAN HS; 13-053-10
Report to: EAGLE
Invoice to: ↓

Project P.O:
Phone #: 860-589-8257
Fax #:

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 3/19/13

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Analysis Request: EPA METHOD 8082
49788	3-19-PCB-EWOC-21	S	3/19	PM	X
49789	3-19-PCB-EWOC-22				X
49790	3-19-PCB-EWOC-23				X
49791	3-19-PCB-EDFC-24				X
49792	3-19-PCB-EDFC-25				X
49793	3-19-PCB-EDFC-26				X
49794	3-19-PCB-ESFOC-27				X
49795	3-19-PCB-ESFOC-28				X
49796	3-19-PCB-ESFOC-29				X
49797	3-19-PCB-ESFCC-30				X
49798	3-19-PCB-EVLC-31	↓	↓	↓	X

Soil VOA Vials [ ] methanol [ ] H2O
GL Soil container ( ) oz.
GL Soil container ( ) oz.
40 ml VOA Vial [ ] As is [ ] HCl
GL Amber 1000ml [ ] As is [ ] H2SO4
PL As is [ ] 250ml [ ] As is [ ] 500ml [ ] 1000ml
PL H2SO4 [ ] 250ml [ ] 500ml
PL HNO3 250ml
PL NaOH 250ml
Bacteria Bottle

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	3/21/13	13:00
	[signature]	3/21/13	1520

Comments, Special Requirements or Regulations:
- SOXLET EXTRACTION
- RL < 1.0 ppm

Turnaround:
☐ 1 Day*
☐ 2 Days*
☒ 3 Days*
☐ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☐ RCP Cert
☐ GW Protection
☐ SW Protection
☐ GA Mobility
☐ GB Mobility
☐ Residential DEC
☐ I/C DEC
☐ Other

MA
☐ MCP Certification
☐ GW-1
☐ GW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ MWRA eSMART
☐ Other

Data Format
☐ Excel
☐ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☐ Phoenix Std Report
☐ Other
* SURCHARGE APPLIES

State where samples were collected: CT

Cooler: Yes [X] No [ ]
Coolant: IPK [X] ICE [ ] N [ ]

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Temp 6 °C Pg of

587 East Middle Turnpike, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Data Delivery:
[ ] Fax #:
[ ] Email:

Customer: EAGLE ENVIRONMENTAL, Inc
Address: 531 N. MAIN ST.
BRISTOL, CT 06010

Project: JC Brodrick; Cloonan MS; 13-053.10
Report to: EAGLE
Invoice to: "

Project P.O:
Phone #: 860-589-8257
Fax #:

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 3/19/13

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Analysis Request: SOXHLET EXTRACTION 8082
49799	3-19-PCB-EXSFC-32	S	3/19	PM	X
49800	3-19-PCB-EXSFC-33				X
49801	3-19-PCB-EWPC-34				X
49802	3-19-PCB-EWPC-35	↓	↓	↓	X

Analysis Request columns: Soil VOA Vials [ ] methanol [ ] H2O; GL Soil container ( ) oz; GL Soil container ( ) oz; 40 ml VOA Vial [ ] As Is [ ] HCl; GL Amber 1000ml [ ] As Is [ ] H2SO4; PL As Is [ ] 250ml [ ] 500ml [ ] 1000ml; PL H2SO4 [ ] 250ml [ ] 500ml; PL HNO3 250ml; PL NaOH 250ml; Bacteria Bottle

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	3/21/13	13:00
	[signature]	3/21/13	1520

Comments, Special Requirements or Regulations:
- SOXLET EXTRACTION
- RL < 1.0 ppm

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[X] 3 Days*
[ ] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[ ] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

State where samples were collected: CT

Data Format
[ ] Excel
[ ] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[ ] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 20, 2013

FOR: Attn: Mr Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	JM	06/14/13	16:00
Location Code:	F&OPCBTR	Received by:	SW	06/14/13	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	20121389A2E				

Laboratory Data

SDG ID: GBD92055
Phoenix ID: BD92055

Project ID: BBS-CLOONAN MIDDLE SCHOOL
Client ID: 2013-0612-0926 IDC 01A

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	06/14/13		E160.3
Caulk Extraction for PCB	Completed			06/14/13	PP/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.75	mg/kg	06/19/13	AW	3540C/8082
PCB-1221	ND	0.75	mg/kg	06/19/13	AW	3540C/8082
PCB-1232	ND	0.75	mg/kg	06/19/13	AW	3540C/8082
PCB-1242	ND	0.75	mg/kg	06/19/13	AW	3540C/8082
PCB-1248	ND	0.75	mg/kg	06/19/13	AW	3540C/8082
PCB-1254	2.7	0.75	mg/kg	06/19/13	AW	3540C/8082
PCB-1260	ND	0.75	mg/kg	06/19/13	AW	3540C/8082
PCB-1262	ND	0.75	mg/kg	06/19/13	AW	3540C/8082
PCB-1268	ND	0.75	mg/kg	06/19/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	79		%	06/19/13	AW	30 - 150 %
% TCMX	59		%	06/19/13	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

* For PCBs, in order to reach the desired RL, multiple cleanup steps were performed. The extract was cleaned up with a combination of sulfuric acid, potassium permanganate, copper powder and additional florisil.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
June 20, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 20, 2013

FOR: Attn: Mr Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	JM	06/14/13	16:05
Location Code:	F&OPCBTR	Received by:	SW	06/14/13	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	20121389A2E				

Laboratory Data

SDG ID: GBD92055
Phoenix ID: BD92056

Project ID: BBS-CLOONAN MIDDLE SCHOOL
Client ID: 2013-0612-0926 IDC 01B

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	06/14/13		E160.3
Caulk Extraction for PCB	Completed			06/14/13	PP/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.57	mg/kg	06/19/13	AW	3540C/8082
PCB-1221	ND	0.57	mg/kg	06/19/13	AW	3540C/8082
PCB-1232	ND	0.57	mg/kg	06/19/13	AW	3540C/8082
PCB-1242	ND	0.57	mg/kg	06/19/13	AW	3540C/8082
PCB-1248	ND	0.57	mg/kg	06/19/13	AW	3540C/8082
PCB-1254	2.9	0.57	mg/kg	06/19/13	AW	3540C/8082
PCB-1260	ND	0.57	mg/kg	06/19/13	AW	3540C/8082
PCB-1262	ND	0.57	mg/kg	06/19/13	AW	3540C/8082
PCB-1268	ND	0.57	mg/kg	06/19/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	83		%	06/19/13	AW	30 - 150 %
% TCMX	67		%	06/19/13	AW	30 - 150 %

Project ID: BBS-CLOONAN MIDDLE SCHOOL
Client ID: 2013-0612-0926 IDC 01B

Phoenix I.D.: BD92056

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

* For PCBs, in order to reach the desired RL, multiple cleanup steps were performed. The extract was cleaned up with a combination of sulfuric acid, potassium permanganate, copper powder and additional florisil.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
June 20, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 20, 2013

FOR: Attn: Mr Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	JM	06/14/13	16:10
Location Code:	F&OPCBTR	Received by:	SW	06/14/13	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	20121389A2E				

Laboratory Data

SDG ID: GBD92055
Phoenix ID: BD92057

Project ID: BBS-CLOONAN MIDDLE SCHOOL
Client ID: 2013-0612-0926 IDC 02A

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	06/14/13		E160.3
Caulk Extraction for PCB	Completed			06/14/13	PP/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	4.5	mg/kg	06/18/13	AW	3540C/8082
PCB-1221	ND	4.5	mg/kg	06/18/13	AW	3540C/8082
PCB-1232	ND	4.5	mg/kg	06/18/13	AW	3540C/8082
PCB-1242	ND	4.5	mg/kg	06/18/13	AW	3540C/8082
PCB-1248	ND	4.5	mg/kg	06/18/13	AW	3540C/8082
PCB-1254	12	4.5	mg/kg	06/18/13	AW	3540C/8082
PCB-1260	ND	4.5	mg/kg	06/18/13	AW	3540C/8082
PCB-1262	ND	4.5	mg/kg	06/18/13	AW	3540C/8082
PCB-1268	ND	4.5	mg/kg	06/18/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	144		%	06/18/13	AW	30 - 150 %
% TCMX	134		%	06/18/13	AW	30 - 150 %

Project ID: BBS-CLOONAN MIDDLE SCHOOL
Client ID: 2013-0612-0926 IDC 02A

Phoenix I.D.: BD92057

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
June 20, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 20, 2013

FOR: Attn: Mr Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	JM	06/14/13	16:20
Location Code:	F&OPCBTR	Received by:	SW	06/14/13	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	20121389A2E				

Laboratory Data

SDG ID: GBD92055
Phoenix ID: BD92059

Project ID: BBS-CLOONAN MIDDLE SCHOOL
Client ID: 2013-0612-0926 IDC 02C

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	06/14/13		E160.3
Caulk Extraction for PCB	Completed			06/14/13	PP/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	4.6	mg/kg	06/18/13	AW	3540C/8082
PCB-1221	ND	4.6	mg/kg	06/18/13	AW	3540C/8082
PCB-1232	ND	4.6	mg/kg	06/18/13	AW	3540C/8082
PCB-1242	ND	4.6	mg/kg	06/18/13	AW	3540C/8082
PCB-1248	ND	4.6	mg/kg	06/18/13	AW	3540C/8082
PCB-1254	12	4.6	mg/kg	06/18/13	AW	3540C/8082
PCB-1260	ND	4.6	mg/kg	06/18/13	AW	3540C/8082
PCB-1262	ND	4.6	mg/kg	06/18/13	AW	3540C/8082
PCB-1268	ND	4.6	mg/kg	06/18/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	131		%	06/18/13	AW	30 - 150 %
% TCMX	129		%	06/18/13	AW	30 - 150 %

Project ID: BBS-CLOONAN MIDDLE SCHOOL
Client ID: 2013-0612-0926 IDC 02C

Phoenix I.D.: BD92059

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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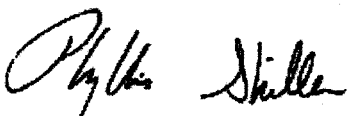

Phyllis Shiller, Laboratory Director
June 20, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 20, 2013

FOR: Attn: Mr Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	JM	06/14/13	16:25
Location Code:	F&OPCBTR	Received by:	SW	06/14/13	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	20121389A2E				

Laboratory Data

SDG ID: GBD92055
Phoenix ID: BD92060

Project ID: BBS-CLOONAN MIDDLE SCHOOL
Client ID: 2013-0612-0926 EEC 01A

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	06/14/13		E160.3
Caulk Extraction for PCB	Completed			06/14/13	PP/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.78	mg/kg	06/18/13	AW	3540C/8082
PCB-1221	ND	0.78	mg/kg	06/18/13	AW	3540C/8082
PCB-1232	ND	0.78	mg/kg	06/18/13	AW	3540C/8082
PCB-1242	ND	0.78	mg/kg	06/18/13	AW	3540C/8082
PCB-1248	ND	0.78	mg/kg	06/18/13	AW	3540C/8082
PCB-1254	0.92	0.78	mg/kg	06/18/13	AW	3540C/8082
PCB-1260	ND	0.78	mg/kg	06/18/13	AW	3540C/8082
PCB-1262	ND	0.78	mg/kg	06/18/13	AW	3540C/8082
PCB-1268	ND	0.78	mg/kg	06/18/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	109		%	06/18/13	AW	30 - 150 %
% TCMX	84		%	06/18/13	AW	30 - 150 %

Project ID: BBS-CLOONAN MIDDLE SCHOOL
Client ID: 2013-0612-0926 EEC 01A

Phoenix I.D.: BD92060

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
June 20, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 20, 2013

FOR: Attn: Mr Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	JM	06/14/13	16:30
Location Code:	F&OPCBTR	Received by:	SW	06/14/13	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	20121389A2E				

Laboratory Data

SDG ID: GBD92055
Phoenix ID: BD92061

Project ID: BBS-CLOONAN MIDDLE SCHOOL
Client ID: 2013-0612-0926 EEC 01B

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	06/14/13		E160.3
Caulk Extraction for PCB	Completed			06/14/13	PP/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.74	mg/kg	06/18/13	AW	3540C/8082
PCB-1221	ND	0.74	mg/kg	06/18/13	AW	3540C/8082
PCB-1232	ND	0.74	mg/kg	06/18/13	AW	3540C/8082
PCB-1242	ND	0.74	mg/kg	06/18/13	AW	3540C/8082
PCB-1248	ND	0.74	mg/kg	06/18/13	AW	3540C/8082
PCB-1254	0.79	0.74	mg/kg	06/18/13	AW	3540C/8082
PCB-1260	ND	0.74	mg/kg	06/18/13	AW	3540C/8082
PCB-1262	ND	0.74	mg/kg	06/18/13	AW	3540C/8082
PCB-1268	ND	0.74	mg/kg	06/18/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	118		%	06/18/13	AW	30 - 150 %
% TCMX	100		%	06/18/13	AW	30 - 150 %

Project ID: BBS-CLOONAN MIDDLE SCHOOL
Client ID: 2013-0612-0926 EEC 01B

Phoenix I.D.: BD92061

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
June 20, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

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Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 20, 2013

FOR: Attn: Mr Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	JM	06/14/13	16:35
Location Code:	F&OPCBTR	Received by:	SW	06/14/13	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	20121389A2E				

Laboratory Data

SDG ID: GBD92055
Phoenix ID: BD92062

Project ID: BBS-CLOONAN MIDDLE SCHOOL
Client ID: 2013-0612-0926 EEC 01C

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	06/14/13		E160.3
Caulk Extraction for PCB	Completed			06/14/13	PP/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.81	mg/kg	06/18/13	AW	3540C/8082
PCB-1221	ND	0.81	mg/kg	06/18/13	AW	3540C/8082
PCB-1232	ND	0.81	mg/kg	06/18/13	AW	3540C/8082
PCB-1242	ND	0.81	mg/kg	06/18/13	AW	3540C/8082
PCB-1248	ND	0.81	mg/kg	06/18/13	AW	3540C/8082
PCB-1254	1.9	0.81	mg/kg	06/18/13	AW	3540C/8082
PCB-1260	ND	0.81	mg/kg	06/18/13	AW	3540C/8082
PCB-1262	ND	0.81	mg/kg	06/18/13	AW	3540C/8082
PCB-1268	ND	0.81	mg/kg	06/18/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	115		%	06/18/13	AW	30 - 150 %
% TCMX	107		%	06/18/13	AW	30 - 150 %

Project ID: BBS-CLOONAN MIDDLE SCHOOL
Client ID: 2013-0612-0926 EEC 01C

Phoenix I.D.: BD92062

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
June 20, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

June 20, 2013

QA/QC Data

SDG I.D.: GBD92055

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 235485, QC Sample No: BD92092 (BD92055, BD92056, BD92057, BD92059, BD92060, BD92061, BD92062)									
Polychlorinated Biphenyls - Solid									
PCB-1016	ND	85	77	9.9	84			40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	90	84	6.9	106			40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	90	95	96	1.0	100			30 - 150	30
% TCMX (Surrogate Rec)	76	84	67	22.5	77			30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
June 20, 2013

Sample Criteria Exceedences Report

GBD92055 - FOPCBTR

Requested Criteria: None

State: CT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Reasonable Confidence Protocol
Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. **Client:** F&OPCBTR

Project Location: BBS-CLOONAN MIDDLE SCHO **Project Number:**

Laboratory Sample ID(s): BD92055, BD92056, BD92057, BD92059, BD92060, BD92061, BD92062

Sampling Date(s): 6/14/2013

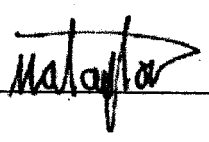
RCP Methods Used:

☐ 1311/1312	☐ 6010	☐ 7000	☐ 7196	☐ 7470/7471	☐ 8081	☐ EPH	☐ TO15
☑ 8082	☐ 8151	☐ 8260	☐ 8270	☐ ETPH	☐ 9010/9012	☐ VPH	

1.	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☑ Yes ☐ No
1b.	EPH and VPH methods only: Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	☐ Yes ☐ No ☑ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☑ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☑ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?	☑ Yes ☐ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5b.	Were these reporting limits met?	☑ Yes ☐ No ☐ NA
6.	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☑ Yes ☐ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes ☑ No ☐ NA

Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowiegde and bellef and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: 

Date: Thursday, June 20, 2013

Printed Name: Maryam Taylor

Position: Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH NY # 11301

RCP Certification Report

June 20, 2013

SDG I.D.: GBD92055

PCB Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument: Au-ecd1 06/19/13-1 (BD92055, BD92056)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner
Position: Chemist
Date: 6/19/2013

Instrument: Au-ecd5 06/18/13-1 (BD92057, BD92059, BD92060, BD92061, BD92062)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner
Position: Chemist
Date: 6/18/2013

QC (Batch Specific)

——— Sample No: BD92092, QA/QC Batch: 235485 ———

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Temperature Narration

The samples in this delivery group were received at 6°C.
(Note acceptance criteria is above freezing up to 6°C)

PHOENIX

Environmental Laboratories, Inc.
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ACCREDITED IN ACCORDANCE WITH
NY # 11301

RCP Certification Report

June 20, 2013

SDG I.D.: GBD92055

6° w/C+IP

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- ☐ 1419 Richland Street, Columbia, SC 29201
- ☐ 78 Interstate Drive, West Springfield, MA 01089
- ☐ 610 Lynndale Court, Suite E, Greenville, NC 27858
- ☐ 24 Madison Avenue Extension, Albany, NY 12203
- ☐ 275 Promenade Street, Suite 350, Providence, RI 02908
- ☐ 80 Washington Street, Suite 301, Poughkeepsie, NY 12601
- ☐ Other _____

CHAIN-OF-CUSTODY RECORD 14105

☐ 1 Day* ☑ 3 Days* ☐ Other _____ (days)
☐ 2 Days* ☐ Standard (____ days) *Surcharge Applies

PROJECT NAME	PROJECT LOCATION	PROJECT NUMBER	LABORATORY
BBS-Cloonan M. Ltlr School	Stamford, CT	20121389.A2E	Phoenix

REPORT TO: Kevin McCarthy | Karson Redfield
INVOICE TO: 1 1
P.O. NO.: 20121389.A2E
Sampler's Signature: [signature] Date: 6/12/13

Source Codes:
MW=Monitoring Well PW=Potable Water S=Soil W=Waste
SW=Surface Water T=Treatment Facility B=Sediment A=Air
X=Other Source Sampling

Analysis Request / Containers

Item No.	Transfer Check 1	2	3	4	Sample Number (Old: 2013-EX012-0926)	Source Code	Date Sampled	Time Sampled	RCRA (8082/3540C)	Soil VOA Vial, [ ] mechanical	Soil VOA Vial, [ ] water	Glass Soil Container (4) oz	Glass Soil Container (8) oz	Other:	Water VOA Vial, [ ] As is [ ] HCl	Glass Amber ( ) mL [ ] As is [ ] HCl	Plastic - As is, [ ] 250 ml	Plastic - H_2SO_4, [ ] 250 ml	Plastic - HNO_3, 250 ml	Plastic - NaOH, 250 ml	Comments
1	✓				IDC-01A	X	6/12/13	1000	✓			1									Black IDC
2	✓				IDC-01B			1005	✓			1									1
3	✓				IDC-02A			1010	✓			1									Gray IDC
4	✓				IDC-02B			1015	✓			1									1
5	✓				IDC-02C			1020	✓			1									1
6	✓				EEC-01A			1025	✓				1								GRAY EEC
7	✓				EEC-01B			1030	✓				1								
8	✓				EEC-01C			1035	✓				1								1

Transfer Number	Relinquished By	Accepted By	Date	Time
1	[signature]	Fuss+Oneill Fedex	6/12/13	1800
2	F.O Fedex	[signature]	6/14/13	1000
3	[signature]		6/14/13	1400
4	[signature]	[signature]		1453

Andrew Bobbins 6-14-13

Reporting and Detection Limit Requirements: < 1ppm

Additional Comments:

6° W|C+IP

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- ☐ 56 Quarry Road, Trumbull, CT 06611
- ☐ 1419 Richland Street, Columbia, SC 29201
- ☐ 78 Interstate Drive, West Springfield, MA 01089
- ☐ 610 Lynndale Court, Suite E, Greenville, NC 27858
- ☐ 24 Madison Avenue Extension, Albany, NY 12203
- ☐ 275 Promenade Street, Suite 350, Providence, RI 02908
- ☐ 80 Washington Street, Suite 301, Poughkeepsie, NY 12601
- ☐ Other _____

CHAIN-OF-CUSTODY RECORD 14105

☐ 1 Day* ☑ 3 Days* ☐ Other _____ (days)
☐ 2 Days* ☐ Standard (_____ days) *Surcharge Applies

PROJECT NAME	PROJECT LOCATION	PROJECT NUMBER	LABORATORY
BBS-Cloonan M. Ltle School	Stamford, CT	20121389.A2E	Phoenix

REPORT TO: Kevin McCarthy | Karson Rodfield
INVOICE TO: 1 1
P.O. NO.: 20121389.A2E
Sampler's Signature: [signature] Date: 6/12/13

Source Codes:
MW=Monitoring Well PW=Potable Water S=Soil W=Waste
SW=Surface Water T=Treatment Facility B=Sediment A=Air
X=Other Source Sampling

Analysis Request: PCBs (8082/3540C)

Containers: Soil VOA Vial, [ ] methanol; Soil VOA Vial, [ ] water; Glass Soil Container (4) oz; Glass Soil Container (8) oz; Other; Water VOA Vial, [ ] As is [ ] HCl; Glass Amber ( ) mL [ ] As is [ ] H2SO4; Plastic - As is, [ ] 250 ml [ ] 500 [ ] 1000 ml; Plastic - H2SO4, [ ] 250 ml [ ] 500 ml; Plastic - HNO3, 250 ml [ ] Filtered [ ] Unfiltered

Item No.	Transfer Check 1	2	3	4	Sample Number (Obs 2013-SK012-0926)	Source Code	Date Sampled	Time Sampled	PCBs			9 2 0 5 5			Soil VOA Vial, [ ] methanol	Soil VOA Vial, [ ] water	Glass Soil Container (4) oz	Glass Soil Container (8) oz	Other	Water VOA Vial, [ ] As is [ ] HCl	Glass Amber ( ) mL [ ] As is	Plastic - As is, [ ] 250 ml	Plastic - H2SO4, [ ] 250 ml	Plastic - HNO3, 250 ml	Plastic - NaOH, 250 ml	Comments
1	✓				IDC-01A	X	6/12/13	1080	✓			9 2 0 5 5					1									Black IDC
2	✓				IDC-01B			1085	✓			9 2 0 5 6					1									1
3	✓				IDC-02A			1090	✓			9 2 0 5 7					1									Gray IDC
4	✓				IDC-02B			1095	✓			9 2 0 5 8			X		1									1
5	✓				IDC-02C			1100	✓			9 2 0 5 9					1									1
6	✓				EEC-01A			1025	✓			9 2 0 6 0						1								Gray EEC
7	✓				EEC-01B			1030	✓			9 2 0 6 1						1								1
8	✓				EEC-01C			1035	✓			9 2 0 6 2						1								1

Transfer Number	Relinquished By	Accepted By	Date	Time
1	[signature]	Fuss & O'Neill Courier	6/12/13	1800
2	F.O'Neill	[signature]	6/13/13	1000
3	[signature]		6/13/13	1000
4	[signature]	[signature]		1453

Andrew Bobinski 6-14-13

Reporting and Detection Limit Requirements: 1ppm

Additional Comments:
* Lost sample during extraction 6/17/13 see email (BJ)

FUSS & O'NEILL
EnviroScience, LLC

Appendix B

Laboratory Analysis and Chain of Custody
Adjacent Porous Surfaces - Bulk

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 30, 2013

FOR: Attn: Mr. Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BH	05/22/13	16:00
Location Code:	F&OPCBTR	Received by:	LB	05/23/13	14:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	20121389.A2E				

Laboratory Data

SDG ID: GBD82592
Phoenix ID: BD82592

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP.
Client ID: 201305221007 IWOGC-01-AS CONCRETE 01A

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	99		%	05/23/13	JL	E160.3
Extraction for PCB	Completed			05/23/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1248	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	82		%	05/24/13	AW	30 - 150 %
% TCMX	86		%	05/24/13	AW	30 - 150 %

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP.
Client ID: 201305221007 IWOGC-01-AS CONCRETE 01A

Phoenix I.D.: BD82592

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
May 30, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 30, 2013

FOR: Attn: Mr. Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BH	05/22/13	16:20
Location Code:	F&OPCBTR	Received by:	LB	05/23/13	14:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	20121389.A2E				

Laboratory Data

SDG ID: GBD82592
Phoenix ID: BD82593

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP.
Client ID: 201305221007 IWOGC-01-AS CONCRETE 01B

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
Percent Solid	100		%	05/23/13	JL	E160.3	
Extraction for PCB	Completed			05/23/13	PP/K	SW3540C	
PCB (Soxhlet)							
PCB-1016	ND	0.32	mg/kg	05/28/13	AW	3540C/8082	
PCB-1221	ND	0.32	mg/kg	05/28/13	AW	3540C/8082	
PCB-1232	ND	0.32	mg/kg	05/28/13	AW	3540C/8082	
PCB-1242	ND	0.32	mg/kg	05/28/13	AW	3540C/8082	
PCB-1248	ND	0.32	mg/kg	05/28/13	AW	3540C/8082	
PCB-1254	0.52	0.32	mg/kg	05/28/13	AW	3540C/8082	
PCB-1260	ND	0.32	mg/kg	05/28/13	AW	3540C/8082	
PCB-1262	ND	0.32	mg/kg	05/28/13	AW	3540C/8082	
PCB-1268	ND	0.32	mg/kg	05/28/13	AW	3540C/8082	
QA/QC Surrogates							
% DCBP	>150		%	05/28/13	AW	30 - 150 %	3
% TCMX	90		%	05/28/13	AW	30 - 150 %	

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP. Phoenix I.D.: BD82593
Client ID: 201305221007 IWOGC-01-AS CONCRETE 01B

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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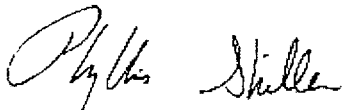

Phyllis Shiller, Laboratory Director
May 30, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 30, 2013

FOR: Attn: Mr. Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BH	05/22/13	16:40
Location Code:	F&OPCBTR	Received by:	LB	05/23/13	14:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	20121389.A2E				

Laboratory Data

SDG ID: GBD82592
Phoenix ID: BD82594

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP.
Client ID: 201305221007 IWOGC-01-AS CONCRETE 01C

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	99		%	05/23/13	JL	E160.3
Extraction for PCB	Completed			05/23/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1221	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1232	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1242	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1248	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1254	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1260	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1262	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1268	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	84		%	05/24/13	AW	30 - 150 %
% TCMX	89		%	05/24/13	AW	30 - 150 %

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP. Phoenix I.D.: BD82594
Client ID: 201305221007 IWOGC-01-AS CONCRETE 01C

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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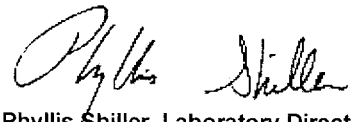

Phyllis Shiller, Laboratory Director
May 30, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 30, 2013

FOR: Attn: Mr. Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BH	05/22/13	16:59
Location Code:	F&OPCBTR	Received by:	LB	05/23/13	14:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	20121389.A2E				

Laboratory Data

SDG ID: GBD82592
Phoenix ID: BD82595

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP.
Client ID: 201305221007 IWOBC-20-AS-BRICK-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100		%	05/23/13	JL	E160.3
Extraction for PCB	Completed			05/23/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1248	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	86		%	05/24/13	AW	30 - 150 %
% TCMX	88		%	05/24/13	AW	30 - 150 %

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP. Phoenix I.D.: BD82595
Client ID: 201305221007 IWOBC-20-AS-BRICK-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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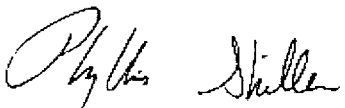

Phyllis Shiller, Laboratory Director
May 30, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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Analysis Report

May 30, 2013

FOR: Attn: Mr. Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BH	05/22/13	17:15
Location Code:	F&OPCBTR	Received by:	LB	05/23/13	14:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	20121389.A2E				

Laboratory Data

SDG ID: GBD82592
Phoenix ID: BD82596

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP.
Client ID: 201305221007 B1AUWS-18-AS-CONCRETE-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	99		%	05/23/13	JL	E160.3
Extraction for PCB	Completed			05/23/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1248	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1260	0.67	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	83		%	05/24/13	AW	30 - 150 %
% TCMX	87		%	05/24/13	AW	30 - 150 %

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP. Phoenix I.D.: BD82596
Client ID: 201305221007 B1AUWS-18-AS-CONCRETE-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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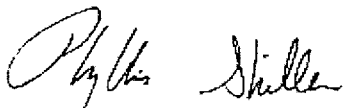

Phyllis Shiller, Laboratory Director
May 30, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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Analysis Report

May 30, 2013

FOR: Attn: Mr. Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BH	05/22/13	17:30
Location Code:	F&OPCBTR	Received by:	LB	05/23/13	14:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	20121389.A2E				

Laboratory Data

SDG ID: GBD82592
Phoenix ID: BD82597

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP.
Client ID: 201305221007 ESFOC-27-AS-BRICK-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100		%	05/23/13	JL	E160.3
Extraction for PCB	Completed			05/23/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.32	mg/kg	05/24/13	AW	3540C/8082
PCB-1221	ND	0.32	mg/kg	05/24/13	AW	3540C/8082
PCB-1232	ND	0.32	mg/kg	05/24/13	AW	3540C/8082
PCB-1242	ND	0.32	mg/kg	05/24/13	AW	3540C/8082
PCB-1248	ND	0.32	mg/kg	05/24/13	AW	3540C/8082
PCB-1254	ND	0.32	mg/kg	05/24/13	AW	3540C/8082
PCB-1260	ND	0.32	mg/kg	05/24/13	AW	3540C/8082
PCB-1262	ND	0.32	mg/kg	05/24/13	AW	3540C/8082
PCB-1268	ND	0.32	mg/kg	05/24/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	81		%	05/24/13	AW	30 - 150 %
% TCMX	86		%	05/24/13	AW	30 - 150 %

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP. Phoenix I.D.: BD82597
Client ID: 201305221007 ESFOC-27-AS-BRICK-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
May 30, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 30, 2013

FOR: Attn: Mr. Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BH	05/22/13	17:55
Location Code:	F&OPCBTR	Received by:	LB	05/23/13	14:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	20121389.A2E				

Laboratory Data

SDG ID: GBD82592
Phoenix ID: BD82598

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP.
Client ID: 201305221007 EWPL-35-AS-BRICK-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100		%	05/23/13	JL	E160.3
Extraction for PCB	Completed			05/23/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1248	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	88		%	05/24/13	AW	30 - 150 %
% TCMX	90		%	05/24/13	AW	30 - 150 %

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP. Phoenix I.D.: BD82598
Client ID: 201305221007 EWPL-35-AS-BRICK-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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May 30, 2013
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Analysis Report

May 30, 2013

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Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BH	05/22/13	18:20
Location Code:	F&OPCBTR	Received by:	LB	05/23/13	14:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	20121389.A2E				

Laboratory Data

SDG ID: GBD82592
Phoenix ID: BD82599

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP.
Client ID: 201305221007 FCYSFC-33-AS-BRICK-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100		%	05/23/13	JL	E160.3
Extraction for PCB	Completed			05/23/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1248	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	90		%	05/24/13	AW	30 - 150 %
% TCMX	76		%	05/24/13	AW	30 - 150 %

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP. Phoenix I.D.: BD82599
Client ID: 201305221007 FCYSFC-33-AS-BRICK-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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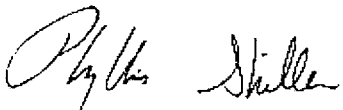

Phyllis Shiller, Laboratory Director
May 30, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

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Analysis Report

May 30, 2013

FOR: Attn: Mr. Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BH	05/22/13	18:45
Location Code:	F&OPCBTR	Received by:	LB	05/23/13	14:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	20121389.A2E				

Laboratory Data

SDG ID: GBD82592
Phoenix ID: BD82600

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP.
Client ID: 201305221007 EWOC-23-AS-BRICK-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100		%	05/23/13	JL	E160.3
Extraction for PCB	Completed			05/23/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1248	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	05/24/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	86		%	05/24/13	AW	30 - 150 %
% TCMX	84		%	05/24/13	AW	30 - 150 %

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP. Phoenix I.D.: BD82600
Client ID: 201305221007 EWOC-23-AS-BRICK-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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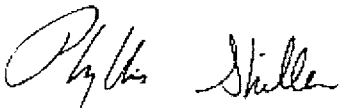

Phyllis Shiller, Laboratory Director
May 30, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

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Analysis Report

May 30, 2013

FOR: Attn: Mr. Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BH	05/22/13	19:10
Location Code:	F&OPCBTR	Received by:	LB	05/23/13	14:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	20121389.A2E				

Laboratory Data

SDG ID: GBD82592
Phoenix ID: BD82601

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP.
Client ID: 201305221007 EVLC-31-AS-CONCRETE-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	97		%	05/23/13	JL	E160.3
Extraction for PCB	Completed			05/23/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1221	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1232	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1242	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1248	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1254	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1260	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1262	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1268	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	86		%	05/24/13	AW	30 - 150 %
% TCMX	70		%	05/24/13	AW	30 - 150 %

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP. Phoenix I.D.: BD82601
Client ID: 201305221007 EVLC-31-AS-CONCRETE-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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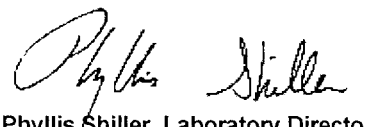

Phyllis Shiller, Laboratory Director
May 30, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

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Analysis Report

May 30, 2013

FOR: Attn: Mr. Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BH	05/22/13	19:30
Location Code:	F&OPCBTR	Received by:	LB	05/23/13	14:20
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	20121389.A2E				

Laboratory Data

SDG ID: GBD82592
Phoenix ID: BD82602

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP.
Client ID: 201305221007 EDFC-26-AS-CONCRETE-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	98		%	05/23/13	JL	E160.3
Extraction for PCB	Completed			05/23/13	PP/K	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1221	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1232	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1242	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1248	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1254	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1260	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1262	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
PCB-1268	ND	0.34	mg/kg	05/24/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	84		%	05/24/13	AW	30 - 150 %
% TCMX	85		%	05/24/13	AW	30 - 150 %

Project ID: CLOONAN MIDDLE SCHOOL-WINDOW & DOOR REP. Phoenix I.D.: BD82602
Client ID: 201305221007 EDFC-26-AS-CONCRETE-01

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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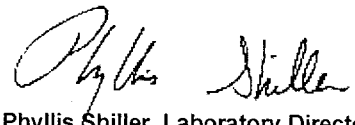


Phyllis Shiller, Laboratory Director
May 30, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

May 30, 2013

QA/QC Data

SDG I.D.: GBD82592

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 231896, QC Sample No: BD82590 (BD82592, BD82593, BD82594, BD82595, BD82596, BD82597, BD82598, BD82599, BD82600, BD82601, BD82602)									
Polychlorinated Biphenyls - Solid									
PCB-1016	ND	79	79	0.0	82	79	3.7	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	85	83	2.4	88	87	1.1	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	82	82	83	1.2	95	85	11.1	30 - 150	30
% TCMX (Surrogate Rec)	81	84	83	1.2	91	87	4.5	30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
May 30, 2013

Requested Criteria: None

State: CT

Sample Criteria Exceedences Report

GBD82592 - FOPCBTR

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Reasonable Confidence Protocol
Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. **Client:** F&OPCBTR

Project Location: CLOONAN MIDDLE SCHOOL-W **Project Number:**

Laboratory Sample ID(s): BD82592, BD82593, BD82594, BD82595, BD82596, BD82597, BD82598, BD82599, BD82600, BD82601, BD82602

Sampling Date(s): 5/22/2013

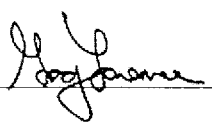
RCP Methods Used:

☐ 1311/1312	☐ 6010	☐ 7000	☐ 7196	☐ 7470/7471	☐ 8081	☐ EPH	☐ TO15
☑ 8082	☐ 8151	☐ 8260	☐ 8270	☐ ETPH	☐ 9010/9012	☐ VPH	

1.	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☑ Yes ☐ No
1b.	EPH and VPH methods only: Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	☐ Yes ☐ No ☑ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☑ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☑ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?	☑ Yes ☐ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5b.	Were these reporting limits met?	☑ Yes ☐ No ☐ NA
6.	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☑ Yes ☐ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes ☑ No ☐ NA

Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: 

Date: Thursday, May 30, 2013

Printed Name: Greg Lawrence

Position: Assistant Lab Director

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☐ 78 Interstate Drive, West Springfield, MA 01089
☐ 317 Iron Horse Way, Suite 204, Providence, RI 02908
☐ 80 Washington Street, Suite 301, Poughkeepsie, NY
☐ Other _____

6°C w/ CTP

CHAIN-OF-CUSTODY RECORD 27775

☐ 24-Hour* ☐ 72-Hour* ☐ Other _____ (days)
☐ 48-Hour* ☑ Standard (5 days) *Surcharge Applies

PROJECT NAME	PROJECT LOCATION	PROJECT NUMBER	LABORATORY
Cloonan Middle School Window + Door Replacement	Stamford, CT	20121389. A2E	Phoenix

REPORT TO: Kevin McCarthy / Karon Redfield

INVOICE TO:

P.O. NO.: 20121389. A2E

Sampler's Signature: B. Hoffman Date:

Source Codes:
MW=Monitoring Well PW=Potable Water T=Treatment Facility S=Soil B=Sediment
SW=Surface Water ST=Stormwater W=Waste A=Air C=Concrete
X=Other Adjacent Surface (Brick, concrete)

Analysis Request / Containers

Item No.	Transfer Check 1	2	3	4	Sample Number	Source Code	Date Sampled	Time Sampled	PCBs 3540c / 8082	Soil VOA Vial, ☐ methanol	Soil VOA Vial, ☐ water ☐ $Na(SO_4)_2$	Glass Soil Container (4) oz	Other:	Other:	Water VOA Vial, ☐ As is ☐ HCl	Glass Amber ( ) ml, ☐ As is ☐ H_2SO_4	Plastic - As is, ☐ 250 ml ☐ 500 ml ☐ 1000 ml	Plastic - H_2SO_4, ☐ 250 ml ☐ 500 ml	Plastic - HNO_3, 250 ml ☐ Filtered ☐ 0.45µ ☐ 10µ	Plastic - NaOH, 250 ml	Comments
11	✓				EDFC-26-AS-CONCRETE-01 20130522 1007	X	5-22-13	1430	✓			1									82602

Transfer Number	Relinquished By	Accepted By	Date	Time
1	B Hoffman	FED FRIDGE	5-23-13	1100
2	FED FRIDGE	[signature]	5-23-13	1040
3	[signature]	[signature]	5/23/13	14:20
4				

Charge Exceptions: ☐ CT Tax Exempt ☐ QA/QC ☐ Other _____
____ Duplicates ____ Blanks (Item Nos:)

Reporting and Detection Limit Requirements: ☐ RCP Deliverables ☐ MCP CAM Cert.
< 1 PPM

Additional Comments:

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

July 03, 2013

FOR: Attn: Mr. Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BH	06/27/13	9:00
Location Code:	F&OPCBTR	Received by:	LB	06/28/13	16:36
Rush Request:	24 Hour	Analyzed by:	see "By" below		
P.O.#:	20121389.A2E				

Laboratory Data

SDG ID: GBD98872
Phoenix ID: BD98872

Project ID: CLOONAN SCHOOL
Client ID: 201306271007 IDC-02B

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	06/28/13		E160.3
Caulk Extraction for PCB	Completed			06/28/13	NP/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	6.1	mg/kg	07/01/13	AW	3540C/8082
PCB-1221	ND	6.1	mg/kg	07/01/13	AW	3540C/8082
PCB-1232	ND	6.1	mg/kg	07/01/13	AW	3540C/8082
PCB-1242	ND	6.1	mg/kg	07/01/13	AW	3540C/8082
PCB-1248	ND	6.1	mg/kg	07/01/13	AW	3540C/8082
PCB-1254	14	6.1	mg/kg	07/01/13	AW	3540C/8082
PCB-1260	ND	6.1	mg/kg	07/01/13	AW	3540C/8082
PCB-1262	ND	6.1	mg/kg	07/01/13	AW	3540C/8082
PCB-1268	ND	6.1	mg/kg	07/01/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	Diluted Out		%	07/01/13	AW	30 - 150 %
% TCMX	Diluted Out		%	07/01/13	AW	30 - 150 %

Project ID: CLOONAN SCHOOL
Client ID: 201306271007 IDC-02B

Phoenix I.D.: BD98872

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
July 03, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

July 03, 2013

FOR: Attn: Mr. Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information

Matrix:	SOLID
Location Code:	F&OPCBTR
Rush Request:	24 Hour
P.O.#:	20121389.A2E

Custody Information

		Date	Time
Collected by:	BH	06/27/13	9:20
Received by:	LB	06/28/13	16:36
Analyzed by:	see "By" below		

Laboratory Data

SDG ID: GBD98872
Phoenix ID: BD98873

Project ID: CLOONAN SCHOOL
Client ID: 201306271007 IDC-02B AS CONCRETE

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	99		%	06/29/13	JL	E160.3
Extraction for PCB	Completed			06/28/13	NP/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
PCB-1248	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
PCB-1254	0.49	0.33	mg/kg	07/01/13	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	114		%	07/01/13	AW	30 - 150 %
% TCMX	96		%	07/01/13	AW	30 - 150 %

Project ID: CLOONAN SCHOOL
Client ID: 201306271007 IDC-02B AS CONCRETE

Phoenix I.D.: BD98873

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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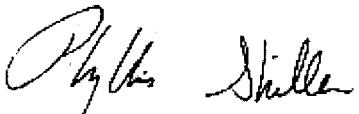

Phyllis Shiller, Laboratory Director
July 03, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

July 03, 2013

FOR: Attn: Mr. Kevin McCarthy
Fuss & O'Neill, Inc.
56 Quarry Road
Trumbull, CT 06611

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:	BH	06/27/13	9:45
Location Code:	F&OPCBTR	Received by:	LB	06/28/13	16:36
Rush Request:	24 Hour	Analyzed by:	see "By" below		
P.O.#:	20121389.A2E				

Laboratory Data

SDG ID: GBD98872
Phoenix ID: BD98874

Project ID: CLOONAN SCHOOL
Client ID: 201306271007 IDC-01A-AS BRICK

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100		%	06/29/13	JL	E160.3
Extraction for PCB	Completed			06/28/13	NP/HB	SW3540C
PCB (Soxhlet)						
PCB-1016	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
PCB-1221	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
PCB-1232	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
PCB-1242	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
PCB-1248	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
PCB-1254	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
PCB-1260	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
PCB-1262	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
PCB-1268	ND	0.33	mg/kg	07/01/13	AW	3540C/8082
QA/QC Surrogates						
% DCBP	88		%	07/01/13	AW	30 - 150 %
% TCMX	85		%	07/01/13	AW	30 - 150 %

Project ID: CLOONAN SCHOOL
Client ID: 201306271007 IDC-01A-AS BRICK

Phoenix I.D.: BD98874

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
July 03, 2013
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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QA/QC Report

July 03, 2013

QA/QC Data

SDG I.D.: GBD98872

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 237952, QC Sample No: BD98943 (BD98872, BD98873, BD98874)									
Polychlorinated Biphenyls - Solid									
PCB-1016	ND	68	78	13.7	83	79	4.9	40 - 140	30
PCB-1221	ND							40 - 140	30
PCB-1232	ND							40 - 140	30
PCB-1242	ND							40 - 140	30
PCB-1248	ND							40 - 140	30
PCB-1254	ND							40 - 140	30
PCB-1260	ND	71	95	28.9	93	89	4.4	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	77	92	101	9.3	100	97	3.0	30 - 150	30
% TCMX (Surrogate Rec)	77	72	81	11.8	87	83	4.7	30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
July 03, 2013

Requested Criteria: None

State: CT

Sample Criteria Exceedences Report

GBD98872 - FOPCBTR

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Reasonable Confidence Protocol
Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. **Client:** F&OPCBTR

Project Location: CLOONAN SCHOOL **Project Number:**

Laboratory Sample ID(s): BD98872, BD98873, BD98874

Sampling Date(s): 6/27/2013

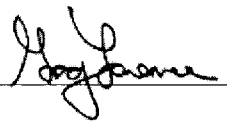
RCP Methods Used:

☐ 1311/1312	☐ 6010	☐ 7000	☐ 7196	☐ 7470/7471	☐ 8081	☐ EPH	☐ TO15
☑ 8082	☐ 8151	☐ 8260	☐ 8270	☐ ETPH	☐ 9010/9012	☐ VPH	

1.	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☑ Yes ☐ No
1b.	EPH and VPH methods only: Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	☐ Yes ☐ No ☑ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☑ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☑ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?	☑ Yes ☐ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5b.	Were these reporting limits met?	☑ Yes ☐ No ☐ NA
6.	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☑ Yes ☐ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes ☑ No ☐ NA

Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: 

Date: Wednesday, July 03, 2013

Printed Name: Greg Lawrence

Position: Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

July 03, 2013

SDG I.D.: GBD98872

PCB Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument: Au-ecd7 07/01/13-1 (BD98872, BD98874)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner
Position: Chemist
Date: 7/1/2013

Instrument: Au-ecd8 07/01/13-1 (BD98873)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner
Position: Chemist
Date: 7/1/2013

QC (Batch Specific)

---------- Sample No: BD98943, QA/QC Batch: 237952 ----------

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Temperature Narration

The samples were received at 6C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

RCP Certification Report

July 03, 2013

SDG I.D.: GBD98872

Coulter

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- ☐ 1419 Richland Street, Columbia, SC 29201
- ☐ 78 Interstate Drive, West Springfield, MA 01089
- ☐ 610 Lynndale Court, Suite E, Greenville, NC 27858
- ☐ 24 Madison Avenue Extension, Albany, NY 12203
- ☐ 275 Promenade Street, Suite 350, Providence, RI 02908
- ☐ 80 Washington Street, Suite 301, Poughkeepsie, NY 12601
- ☐ Other _____

CHAIN-OF-CUSTODY RECORD 14167

- ☑ 1 Day*
- ☐ 2 Days*
- ☐ 3 Days*
- ☐ Standard (____ days)
- ☐ Other _____ (days)

*Surcharge Applies

PROJECT NAME	PROJECT LOCATION	PROJECT NUMBER	LABORATORY
Cloonan School	Stamford, CT	20121389.A2E	Phoenix

REPORT TO: Kevin McCarthy

INVOICE TO:

P.O. No.: 20121389.A2E

Sampler's Signature: B. Hoffman Date: 6-27-13

Source Codes:
MW=Monitoring Well PW=Potable Water S=Soil W=Waste
SW=Surface Water T=Treatment Facility B=Sediment A=Air
X=Other BULK (caulking), Adjacent (Brick, concrete)

Analysis Request: PCBs 8540C | 9082

Containers

Item No.	Transfer Check 1	2	3	4	Sample Number 20130627 1007	Source Code	Date Sampled	Time Sampled	Soil VOA Vial, [ ] methanol	Soil VOA Vial, [ ] water	Glass Soil Container (4) oz	Glass Soil Container ( ) oz	Other:	Water VOA Vial, [ ] As is [ ] HCl	Glass Amber ( ) ml, [ ] As is [ ] H_2SO_4	Plastic - As is, [ ] 250 ml [ ] 500 [ ] 1000 ml	Plastic - H_2SO_4, [ ] 250 ml [ ] 500 ml	Plastic - HNO_3, 250 ml [ ] Filtered [ ] Unfiltered	Plastic - NaOH, 250 ml	Comments
1	✓	✓	✓		IDC-02B	X	6-27	900	✓			1		98870						INT. DOOR CAULK
2	✓	✓	✓		IDC-02B-AS-CONCRETE	"	"	920	✓			1		98873						ADJ. SURFACE - concrete
3	✓	✓	✓		IDC-01A-AS-BRICK	"	"	945	✓			1		98874						ADJ SURFACE - BRICK

Transfer Number	Relinquished By	Accepted By	Date	Time
1	B. Hoffman's	FdO Fridge	6-27	1600
2	FdO Fridge	[signature]	6/28/13	1005
3	[signature]	[signature]	6/28/13	1025
4	[signature]	[signature]	6/28/13	1634

Reporting and Detection Limit Requirements: 2 1 PPM

Additional Comments:

FUSS & O'NEILL
EnviroScience, LLC

Appendix C

Technical Specification Section

DIVISION 2 – SITE CONSTRUCTION

SECTION 02085 – PCB REMEDIATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of Contract, including General Supplementary Conditions apply to this Section.

B. Pre-Construction Survey, Sampling, and Analysis of Suspect Asbestos, Lead, and PCB Containing Materials Associated with Proposed Window and Door Removal Project dated April 2013.

C. Performance Based Disposal Plan dated October 2013.

D. Hazardous Materials Abatement Drawing HM-01, HM-02, and HM-03.

1.2 GENERAL REQUIREMENTS

A. The PCB Abatement Contractor shall furnish all labor, materials, facilities, equipment, installation services, employee training, notifications, permits, licenses, certifications, agreements and incidentals necessary to perform the specified work. Work shall be performed in accordance with the contract documents, the latest regulations from the Occupational Safety and Health Administration (OSHA), the United States Environmental Protection Agency (EPA), and all other applicable federal, state and local agencies. Whenever the requirements of the above references conflict or overlap, the more stringent provision shall apply.

B. All project personnel engaged in the work covered under this section shall be trained in accordance with OSHA Regulations 29 CFR 1910.1000 and 29 CFR 1910.1200.

C. This section specifies the procedures for removal of existing materials containing polychlorinated biphenyls (PCB), equal to or greater than (≥) 50 parts per million (ppm), in the form of interior window opening caulking compounds – grey, window sash and frame adhesive, black interior adhesive under aluminum window sill, window glass, as PCB Bulk Product Waste.

D. This section also includes the removal of less than (<) 50 ppm PCBs in the form of exterior and interior door caulking compounds, exterior store front caulking compounds, exterior vent caulking compounds, and exterior expansion caulking compounds.

E. Subsequent cleaning of all adjacent surfaces upon completion of work is also included in this section.

F. Disturbance or removal of polychlorinated biphenyls (PCB) containing materials may cause a health hazard to workers and building occupants. The PCB Abatement Contractor shall disclose to all of his workers, supervisory personnel, subcontractors and consultants who will be at job site of the seriousness of the

hazard and of proper work procedures which must be followed.

G. Where in the performance of the work, workers, supervisory personnel, subcontractors, or consultants may encounter, disturb or otherwise function in the immediate vicinity of polychlorinated biphenyls (PCB) containing materials, appropriate, continuous measures as necessary to protect all workers from the hazard of exposure shall be taken. Such measures shall include the procedures and methods described herein, regulations of the OSHA, EPA, and local requirements as applicable.

H. The results of the testing for PCB containing materials are identified in the Performance Based Disposal Plan.

I. Project Scope Locations and Work Statement: The project site is the located at Cloonan Middle School, Stamford, Connecticut. Locations of work are also detailed on the Figures provided in Performance Based Disposal Plan. The proposed removal and disposal activities to be performed by PCB Abatement Contractor shall include the following:

1. Site preparation and controls to facilitate remediation of PCBs. Containment procedures referenced for the abatement zone must be utilized for PCB Bulk Product Waste removal.
2. Health and Safety in accordance with Occupation Safety and Health Administration (OSHA) requirements.
3. Remove and dispose of approximately 190 window systems containing exterior and interior window caulking and glazing compounds, window sash and frame adhesive, and adhesive under aluminum window sill totaling approximately 2,600 linear feet as PCB Bulk Product Waste mixed with asbestos.
4. Remove and dispose of approximately 24 door systems containing exterior and interior door caulking compounds and store front caulking compounds totaling approximately 1,000 linear feet, 70 expansion systems containing exterior expansion caulking compounds totaling approximately 2,000 linear feet, 50 stairwell expansion systems totaling approximately 1,000 linear feet, and 2 vent systems containing exterior vent caulking compounds totaling approximately 20 linear feet as <50 ppm PCB Containing Materials mixed with asbestos.
5. Cleaning of each work area following complete removal of PCB containing materials to ensure adherence for post cleaning verification levels established in above referenced PIP.
6. Recordkeeping and distribution as required in accordance with 40 CFR part 761.125 (c)(5).

1.3 REFERENCES

A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only. Where a conflict or overlap among regulations and/or these specifications exist, the most stringent requirements shall apply.

1. American National Standards Institute (ANSI)
   a. ANSI.Z89.1 Personnel Protective Equipment -

Protective Headwear for Industrial Worker's Requirements (Latest Revision)

b. ANSI.Z87

2. Code of Federal Regulations (CFR)
   a. 29 CFR Subpart D- Walking, Working Surfaces
   b. 29 CFR 1910.120 - Hazardous Waste Operations and Emergency Response (HAZWOPER).
   c. 29 CFR 1910.134 - Respiratory Protection Standard
   d. 29 CFR 191 0.146 - Permit-Required Confined Spaces
   e. 29 CFR 1910.1000 – Air Contaminants (Table Z-1)
   f. 29 CFR 1910.1200 - Hazard Communication
   g. 29 CFR 1926.20 - General Health and Safety Provisions
   h. 29 CFR 1926.57 - Ventilation
   i. 29 CFR 1926.59 - Hazard Communication Program
   j. 29 CFR 1926.62 - Lead Exposure in Construction
   k. 29 CFR 1926.95 - Criteria for Personal Protective Equipment
   l. 29 CFR 1926, Subpart H - Materials Handling, Storage, Use and Disposal
   m. 29 CFR 1926, Subpart L - Scaffolding
   n. 29 CFR 1926, Subpart M -Fall Protection
   o. 29 CFR 1926, Subpart X - Ladders
   p. 29 CFR 1926, Subpart Z - Toxic and Hazardous Substances
   q. 40 CFR 50.6 - National Primary and Secondary Ambient Air Quality Standards for Particulate Matter
   r. 40 CFR 260 - Hazardous Waste Management System: General
   s. 40 CFR 261 - Identification and Listing of Hazardous Waste
   t. 40 CFR 262 - Standards Applicable to Generators of Hazardous Waste
   u. 40 CFR 263 - Standards Applicable to Transporters of Hazardous Waste
   v. 40 CFR 264 - Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
   w. 40 CFR 265 - Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
   x. 40 CFR 268 - Land Disposal Restrictions
   y. 40 CFR 700 - Toxic Substances Control Act (TSCA)
   z. 40 CFR 761- PCBs Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions
   aa. 49 CFR 105 - Hazardous Materials Program Definitions and General Procedures
   ab. 49 CFR 171 - General Information, Regulations and Definitions
   ac. 49 CFR 172 - Hazardous Material Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements
   ad. 49 CFR 173 - Shippers-General Requirements for Shipments and Packaging
   ae. 49 CFR 177 - Carriage by Public Highway
   af. 49 CFR 176 - Specifications for Packaging
3. National Institute for Occupational Safety and Health

(NIOSH)
a. Publication Number 87-106 Respiratory Decision Logic
b. NIOSH /OSHA Booklet 3142 Lead in Construction
c. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (NIOSH Publication 85-115)

4. U.S. Environmental Protection Agency (USEPA), Toxic Substances Control Act (TSCA)
a. Polychlorinated Biphenyl (PCB) Site Revitalization Guidance Under the Toxic Substances Control Act
b. 40 CFR Part 761.50 - Applicability (b) (1-8)
c. 40 CFR Part 761.61 - PCB Remediation Waste
d. 40 CFR Part 761.62 - PCB Bulk Product Waste
e. 40 CFR Part 761.79 - Decontamination

5. Center for Disease Control (CDC): Air Pollution and Respiratory Health.

1.4 DEFINITIONS

A. The following definitions as used within this technical specification as well as references to specific sections of the Code of Federal Regulation section 40 CRF Part 761 are provided. Definitions are extracted in part from 40 CFR Part 761.3, for full definitions refer to the specified section of regulations.

1. CERCLA means the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601-9657).
2. Chemical waste landfill means a landfill at which protection against risk of injury to health or the environment from migration of PCBs to land, water, or the atmosphere is provided from PCBs and PCB Items deposited therein by locating, engineering, and operating the landfill as specified in §761.75.
3. Cleanup Site means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of a cleanup of PCB remediation waste, regardless of whether the site was intended for management of waste.
4. Containment means the area which establishes a contaminated area and surrounds the location where PCB and/or other toxic or hazardous substance removal is taking place and establishes a Control Work Area.
5. Designated Facility means the off-site disposer or commercial storer of PCB waste designated on the manifest as the facility that will receive a manifested shipment of PCB waste.
6. Disposal means intentionally or accidentally to discard, throw away, or otherwise complete or terminate the useful life of PCBs and PCB Items. Disposal includes spills, leaks, and other uncontrolled discharges of PCBs as well as actions related to containing, transporting, destroying, degrading, decontaminating, or confining PCBs and PCB Items.
7. DOT means the United States Department of Transportation.
8. EPA identification number means the 12-digit number assigned to a facility by EPA upon notification of PCB waste activity under §761.205.

9. Excluded PCB products means PCB materials which appear at concentrations less than 50 ppm as defined in 40 CFR §761.3.
10. Fixed Object: means mechanical equipment, electrical equipment, fire detection systems, alarms, and all other fixed equipment, fixtures or other items which cannot be removed from the work area.
11. Generator of PCB waste means any person whose act or process produces PCBs that are regulated for disposal under subpart D of 40 CFR Part 761, or whose act first causes PCBs or PCB Items to become subject to the disposal requirements of subpart D, or who has physical control over the PCBs when a decision is made that the use of the PCBs has been terminated and therefore is subject to the disposal requirements of subpart D. Unless another provision of 40 CFR Part 761 specifically requires a site-specific meaning, "generator of PCB waste" includes all of the sites of PCB waste generation owned or operated by the person who generates PCB waste.
12. HEPA: High Efficiency Particulate Air filtration efficiency of 99.97 percent down to 0.3 microns. Filtration provided on specialized vacuums and air filtration devices to trap particles.
13. High occupancy area means any area where PCB remediation waste has been disposed of on-site and where occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: 840 hours or more (an average of 16.8 hours or more per week) for non-porous surfaces and 335 hours or more (an average of 6.7 hours or more per week) for bulk PCB remediation waste. Examples could include a residence, school, day care center, sleeping quarters, a single or multiple occupancy 40 hours per week work station, a school class room, a cafeteria in an industrial facility, a control room, and a work station at an assembly line.
14. Incinerator means an engineered device using controlled flame combustion to thermally degrade PCBs and PCB Items. Examples of devices used for incineration include rotary kilns, liquid injection incinerators, cement kilns, and high temperature boilers.
15. Laboratory means a facility that analyzes samples for PCBs and is unaffiliated with any entity whose activities involve PCBs.
16. Liquid PCBs means a homogenous flowable material containing PCBs and no more than 0.5 percent by weight non-dissolved material.
17. Low occupancy area means any area where PCB remediation waste has been disposed of on-site and where occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: less than 840 hours (an average of 16.8 hours per week) for non-porous surfaces and less than 335 hours (an average of 6.7 hours per week) for bulk PCB remediation waste. Examples could include an electrical substation or a location in an industrial facility where a worker spends small amounts of time per week (such as an unoccupied area outside a building, an

electrical equipment vault, or in the non-office space in a warehouse where occupancy is transitory).

18. Manifest means the shipping document EPA form 8700-22 and any continuation sheet attached to EPA form 8700-22, originated and signed by the generator of PCB waste in accordance with the instructions included with the form and subpart K of this part.
19. Mark means the descriptive name, instructions, cautions, or other information applied to PCBs and PCB Items, or other objects subject to these regulations.
20. Marked means the marking of PCB Items and PCB storage areas and transport vehicles by means of applying a legible mark by painting, fixation of an adhesive label, or by any other method that meets the requirements of these regulations.
21. Municipal solid wastes means garbage, refuse, sludges, wastes, and other discarded materials resulting from residential and non-industrial operations and activities, such as household activities, office functions, and commercial housekeeping wastes.
22. Non-liquid PCBs means materials containing PCBs that by visual inspection do not flow at room temperature (25°C or 77°F) or from which no liquid passes when a 100 g or 100 ml representative sample is placed in a mesh number 60 ±5 percent paint filter and allowed to drain at room temperature for 5 minutes.
23. Non-porous surface means a smooth, unpainted solid surface that limits penetration of liquid containing PCBs beyond the immediate surface. Examples are: smooth un-corroded metal; natural gas pipe with a thin porous coating originally applied to inhibit corrosion; smooth glass; smooth glazed ceramics; impermeable polished building stone such as marble or granite; and high density plastics, such as polycarbonates and melamines, that do not absorb organic solvents.
24. On site means within the boundaries of a contiguous property unit.
25. PCB and PCBs means any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees or any combination of substances which contains such substance. Refer to §761.1(b) for applicable concentrations of PCBs. PCB and PCBs as contained in PCB items are defined in §761.3. For any purposes under this part, inadvertently generated non-Aroclor PCBs are defined as the total PCBs calculated following division of the quantity of mono-chlorinated biphenyls by 50 and di-chlorinated biphenyls by 5.
26. PCB Article means any manufactured article, other than a PCB Container, that contains PCBs and whose surface(s) has been in direct contact with PCBs. "PCB Article" includes capacitors, transformers, electric motors, pumps, pipes and any other manufactured item (1) which is formed to a specific shape or design during manufacture, (2) which has end use function(s) dependent in whole or in part upon its shape or design during end use, and (3) which has either no change of chemical composition during its end use or only those changes of composition which have no commercial purpose separate from that of the PCB Article.

27. PCB Article Container means any package, can, bottle, bag, barrel, drum, tank, or other device used to contain PCB Articles or PCB Equipment, and whose surface(s) has not been in direct contact with PCBs.
28. PCB Bulk Product Waste means waste derived from manufactured products containing PCBs in a non-liquid state, at any concentration where the concentration at the time of designation for disposal is ≥50 ppm PCBs. PCB bulk product waste does not include PCBs or PCB Items regulated for disposal under §761.60(a) through (c), §761.61, §761.63, or §761.64. PCB bulk product waste is further defined in 40 CFR §761.3. Note in accordance with October 2012 re-interpretation from the U.S. Environmental Protection Agency (EPA), adjacent porous materials in contact with PCB Bulk Products shall be considered PCB Bulk Product Material for disposal purposes.
29. PCB Capacitor means any capacitor that contains ≥500 ppm PCB. Concentration assumptions applicable to capacitors appear under §761.2.
30. PCB Container means any package, can, bottle, bag, barrel, drum, tank, or other device that contains PCBs or PCB Articles and whose surface(s) has been in direct contact with PCBs.
31. PCB-Contaminated means a non-liquid material containing PCBs at concentrations ≥50 ppm but < 500 ppm; a liquid material containing PCBs at concentrations ≥50 ppm but < 500 ppm or where insufficient liquid material is available for analysis, a non-porous surface having a surface concentration >10 µg/100 cm^2 but < 100 µg/100 cm^2 , measured by a standard wipe test as defined in §761.123.
32. PCB Equipment means any manufactured item, other than a PCB Container or a PCB Article Container, which contains a PCB Article or other PCB Equipment, and includes microwave ovens, electronic equipment, and fluorescent light ballasts and fixtures.
33. PCB Item means any PCB Article, PCB Article Container, PCB Container, PCB Equipment, or anything that deliberately or unintentionally contains or has as a part of it any PCB or PCBs.
34. PCB Remediation Waste means waste containing PCBs as a result of a spill, release, or other unauthorized disposal, at the following concentrations: Materials disposed of prior to April 18, 1978, that are currently at concentrations ≥50 ppm PCBs, regardless of the concentration of the original spill; materials which are currently at any volume or concentration where the original source was ≥500 ppm PCBs beginning on April 18, 1978, or ≥50 ppm PCBs beginning on July 2, 1979; and materials which are currently at any concentration if the PCBs are spilled or released from a source not authorized for use under this part. PCB remediation waste means soil, rags, and other debris generated as a result of any PCB spill cleanup, as further defined in 40 CFR §761.3.
35. PCB waste(s) means those PCBs and PCB Items that are subject to the disposal requirements of subpart D in 40 CFR Part 761.

36. Porous surface means any surface that allows PCBs to penetrate or pass into itself including, but not limited to, paint or coating on metal; corroded metal; fibrous glass or glass wool; unglazed ceramics; ceramics with a porous glaze; porous building stone such as sandstone, travertine, limestone, or coral rock; low-density plastics such as Styrofoam and low-density polyethylene; coated (varnished or painted) or uncoated wood; concrete or cement; plaster; plasterboard; wallboard; rubber; fiberboard; chipboard; asphalt; or tar paper. For purposes of cleaning and disposing of PCB remediation waste, porous surfaces have different requirements than non-porous surfaces.
37. RCRA means the Resource Conservation and Recovery Act (40 U.S.C. 6901 et seq.).
38. Standard wipe sample means a sample collected for chemical extraction and analysis using the standard wipe test as defined in §761.123. Except as designated elsewhere in part 761, the minimum surface area to be sampled shall be 100 cm^2.
39. Storage for disposal means temporary storage of PCBs that have been designated for disposal.
40. SW-846 means the document having the title "SW-846, Test Methods for Evaluating Solid Waste,"
41. Totally enclosed manner means any manner that will ensure no exposure of human beings or the environment to any concentration of PCBs.
42. Transfer facility means any transportation-related facility including loading docks, parking areas, and other similar areas where shipments of PCB waste are held during the normal course of transportation. Transport vehicles are not transfer facilities under this definition, unless they are used for the storage of PCB waste, rather than for actual transport activities. Storage areas for PCB waste at transfer facilities are subject to the storage facility standards of §761.65, but such storage areas are exempt from the approval requirements of §761.65(d) and the recordkeeping requirements of §761.180, unless the same PCB waste is stored there for a period of more than 10 consecutive days between destinations.
43. Transporter of PCB waste means, for the purposes of subpart K of 40 CFR Part 761, any person engaged in the transportation of regulated PCB waste by air, rail, highway, or water for purposes other than consolidation by a generator.
44. Transport vehicle means a motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (e.g., trailer, railroad freight car) is a separate transport vehicle.
45. TSCA means the Toxic Substances Control Act (15 U.S.C. 2601 et seq.).

1.5 SUBMITTALS

A. The following documents shall be submitted immediately upon project award to the Owner prior to commencement of PCB Removal work:

1. Site Specific Health and Safety Plan (HASP): The PCB Abatement Contractor shall prepare a site specific HASP plan for protection of workers and control of the work site in accordance with OSHA regulatory requirements. The HASP shall govern all work conducted at the site during the abatement of PCB materials and related debris; waste handling, sampling, waste management; and waste transportation. At a minimum, the HASP shall address the requirements set forth in 29 CFR 1910.120, as further outlined below:
    a. Health and Safety Organization
    b. Site Description and Hazard Assessment
    c. Training
    d. Medical Surveillance
    e. Work Areas
    f. Personal Protective Equipment
    g. Personal Hygiene and Decontamination
    h. Standard Operating Procedures and Engineering Controls
    i. Emergency Equipment and First Aid Provisions
    j. Equipment Decontamination
    k. Air Monitoring
    l. Telephone List
    m. Emergency Response and Evacuation Procedures and Routes
    n. Site Control
    o. Permit-Required Confined Space Procedures
    p. Spill prevention and Containment Plan
    q. Heat and Cold Stress
    r. Record Keeping
    s. Community Protection Plan
2. Training Documentation: Documentation of OSHA 40-Hour HAZWOPER Training for all employees and subcontractors to be used for the abatement work.
3. PCB and or other Toxic or Hazardous Substances Disposal Plan: A written plan that details the PCB Abatement Contractor's plan for transportation and disposal of PCB-containing or other Toxic or Hazardous Substance wastes generated during the project. The Disposal Plan shall identify:
    a. Waste packaging, labeling, placarding and manifesting procedures.
    b. The name, address and 24-hour contact number for the proposed treatment or disposal facility or facilities to which waste generated during the project will be transported.
    c. The name, address, contact person(s) and state-specific permit numbers for proposed waste transporters, and EPA identification number for firms that will transport waste.
    d. The license plate numbers of vehicles to be used in transporting of the waste from the site to the disposal facility.
    e. The route(s) by which the waste will be transported to the designated disposal facility, and states or territories through which the waste will pass.

4. Material Safely Data Sheets: Material Safety Data Sheets (OSHA Form 174 or equivalent) and manufacturer's information shall be provided for all chemicals and materials to be used during the project including but not limited to specialty cleaners and chemical stripping products.

B. The following documents shall be submitted to the Owner within fifteen (15) work days following removal of waste from the site:

1 Waste Profile Sheets
2. Pre-Disposal Analysis Test Results (If required by disposal facility)
3. Manifests signed by the disposal facility
4. Tipping Receipts provided by the disposal facility
5. Certification of Final Treatment/Disposal signed by the responsible disposal facility official.

C. PCB Work Closeout Submittals:

1. Disposal Site Receipts: Copy of waste shipment record and disposal site receipt showing the PCB-containing or other Toxic or Hazardous Substances materials have been properly disposed.

D. Product Data: Catalog sheets, specifications, and application instructions for any removal products, if used.

1.6 POSTING AND RECORD MAINTENANCE REQUIREMENTS

A. The following items shall be conspicuously displayed proximate but outside of abatement work areas.

1. Exit Routes -Emergency exit procedures and routes
2. Emergency Phone Numbers - A list indicating the telephone numbers and locations of the local hospital(s); the local emergency squad; the local fire department; the local police department; the Poison Control Center; Chemical Emergency Advise (CHEMTREC); the local Department of Health's local office; the PCB Abatement Contractor (on-site and after hours numbers); and the environmental consultant (on-site and after hours numbers).
3. Warning Signs - Warning signs shall be in English and the language of any workers onsite who do not speak English, and be of sufficient size to be clearly legible and display the following or similar language in accordance with 29 CFR 1910.1200:

WARNING
HAZARDOUS WASTE WORK AREA
PCBs-POISON
NO SMOKING, EATING OR DRINKING
AUTHORIZED PERSONNEL ONLY
PROTECTIVE CLOTHING IS REQUIRED IN THIS AREA

In addition, all entrances to work areas shall be posted with a PCB M_L marker.

B. The PCB Abatement Contractor shall maintain the following items on-site and available for review by all employees and authorized visitors:

1. PCB Abatement Contractor's Project Specific Health and Safety Plan
2. Certificates of Training for all employees and the project Supervisor
3. Codes, Standards and Publications
4. Material Safety Data Sheets (MSDS) for all chemicals used during the project.
5. Copies of the PCB Abatement Contractor's written hazard communication, respiratory protection, and confined space entry programs.

C. Fees, Permits and Licenses. The PCB Abatement Contractor shall pay all licensing fees, royalties, and other costs necessary for the use of any copyrighted or patented product, design, invention, or processing in the performance of the work specified in this Section.

1. The PCB Abatement Contractor shall be solely responsible for costs, damages, or losses resulting from any infringement of these patent rights or copyrights. The PCB Abatement Contractor shall hold the Owner and the Owner's Authorized Representative harmless from any costs, damages, and losses resulting from any infringement of these patent rights or copyrights.
2. The PCB Abatement Contractor shall be responsible for securing all necessary permits for work under this Section, including hauling, removal, and disposal, fire, and materials usage, or any other permits required to perform the specified work.

1.7 QUALITY ASSURANCE

A. The PCB Abatement Contractor shall provide and assure that the quality of work practices and procedures to be utilized are consistent with the above listed agencies and regulations. PCB Abatement Contractor shall utilize the latest edition, including all addenda, revisions and supplements for all regulatory agencies codes, etc.

B. Worker's Qualifications: The persons performing PCB abatement and their supervisors shall be personally experienced in PCB abatement work and shall have been regularly employed by a company performing PCB abatement for a minimum of 3 years.

C. Pre-Work Conference: Before the Work of this Section is scheduled to commence, a conference will be held by the Owner at the Site for the purpose of reviewing the Contract Documents, discussing requirements for the Work, and reviewing the Work procedures.

1. The conference shall be attended by the PCB Abatement Contractor, and the Owner's Authorized Representative employed by the Owner.

1.8 MINIMUM REQUIREMENTS FOR WORKER HEALTH AND SAFETY

A. The PCB Abatement Contractor is responsible and liable for the health and safety of all onsite personnel and the offsite community affected by the project. All onsite workers or other persons entering the abatement work areas, decontamination areas or waste handling and staging areas shall be knowledgeable of and comply with the requirements of the site specific Health and Safety Plan at all times. The PCB Abatement Contractor's HASP shall comply with all applicable federal, state, and local regulations protecting human health and the environment from the hazards posed by the work to be performed under this project.

B. Consistent disregard for the provisions of the HASP shall be deemed as sufficient cause for immediate stoppage of work and termination of the Contract or any Sub Contracts without compromise or prejudice to the rights of the Owner or the Owner's Authorized Representative.

C. Any discrepancies between the PCB Abatement Contractor's HASP and these specifications or federal and state regulations shall be resolved in favor of the more stringent requirements that provide the highest degree of protection to the project personnel and the surrounding community and environment

D. In addition to exposure concerns relating to the presence of PCB's, other health and safety considerations will apply to the work. The PCB Abatement Contractor shall be responsible for recognizing such hazards and shall be responsible for the health and safety of PCB Abatement Contractor employees at all times. It is the PCB Abatement Contractor's responsibility to comply with all applicable health and safety regulations.

E. The HASP shall be reviewed by all persons prior to entry into the abatement, decontamination, or waste staging areas, whether a representative of the PCB Abatement Contractor, owner, architect/engineer, environmental consultant, subcontractor(s), waste transporter or federal, state or local regulatory agency.

F. The HASP shall be maintained so as to be readily accessible and reviewable by all site personnel throughout the duration of the abatement project and until all waste materials are removed from the site and disposed of at the appropriate disposal facility.

G. The PCB Abatement Contractor's site supervisor shall be responsible for ensuring that project personnel and site visitors are informed of and comply with the provisions of the HASP at all times during the project.

1.9 WORK AREAS AND ZONES

A. The PCB Abatement Contractor shall lay-out and clearly identify work areas in the field. Access by equipment, site personnel, and the public to the work areas shall be limited as follows:

1. Abatement Zone: The Abatement Zone(s) shall consist of all

interior and exterior areas where removal of PCBs and other Toxic or Hazardous Substances and waste handling and staging activities are on-going and the immediately surrounding locale or other areas where contamination could occur. The Abatement Zone for purposes of interior and exterior removal of PCB materials or other Toxic or Hazardous Substances for disposal shall be performed within a containment to isolate work areas from non-work areas. The containment shall be visibly delineated with appropriate warning signs at all approaches to Abatement (including a PCB M_L marker), and be restricted from access by all persons except those directly necessary for the completion of the respective abatement tasks. The Abatement Zone shall be located and delineated as necessary to limit access to the abatement area and to minimize risk of exposure to site workers and the general public. Access shall be controlled at the periphery of the Abatement Zone to regulate the flow of personnel and equipment into and out of the zone and to help verify that proper procedures for entering and exiting are followed. All persons within the Abatement Zone shall wear the appropriate level of protection established in the HASP. The abatement zone shall be constructed as detailed in Section 3.3 and 3.4.

2. Decontamination Zone: The Decontamination Zone is the transition zone between the abatement area and the clean support zone of the project site, and is intended to reduce the potential for contaminants from being dispersed from the Abatement Zone to clean areas of the site. The Decontamination Zone shall consist of a buffer area surrounding the Abatement Zone through which the transfer of equipment, materials, personnel and containerized waste products will occur and in which decontamination of equipment, personnel, and clothing will occur. The Decontamination Zones shall be constructed as a three chamber decontamination unit for workers and a two chamber equipment room for waste load out as detailed in Section 3.5. All emergency response and first aid equipment shall be readily maintained in this Zone. All protective equipment and clothing shall be removed or decontaminated in the Decontamination Zone prior to exiting to the Support Zone.

3. Support Zone: The Support Zone will consist of the area outside the Decontamination Zone and the remainder of the project site. Administrative and other support functions and any activities that by nature need not be conducted in the Abatement or Decontamination Zone related to the project shall occur in the Support Zone, Access to the Abatement and Decontamination Zones shall be controlled by the site supervisor limited to those persons necessary to complete the abatement work and which have reviewed and signed the HASP.

1.10 PERSONNEL PROTECTIVE EQUIPMENT

A. The PCB Abatement Contractor shall be responsible to determine

and provide the appropriate level of personal protective equipment in accordance with applicable regulations and standards necessary to protect the PCB Abatement Contractor's employees from all hazards present.

B. The PCB Abatement Contractor shall provide all employees with the appropriate safety equipment and protective clothing to ensure an appropriate level of protection for each task, taking into consideration the chemical, physical, ergonomic and biological hazards posed by the site and work activities.

C. The PCB Abatement Contractor shall establish in the HASP criteria for the selection and use of personal protective equipment (PPE).

D. The PPE to be utilized for the project shall be selected based upon the potential hazards associated with the project site and the work to be performed. Appropriate protective clothing shall be worn at all times within the Abatement Zone.

E. The PCB Abatement Contractor shall provide the appropriate level of respiratory protection to all field personnel engaged in activities where respiratory hazards exist or there is a potential for such hazard to exit.

F. The PCB Abatement Contractor shall provide, as necessary, protective coveralls, disposable gloves and other protective clothing for all personnel that will be actively involved in abatement activities or waste handling activities or otherwise present in the Abatement Zones. Coveralls shall be of Tyvek or equivalent material. Should the potential for exposure to liquids exist, splash resistant disposable suits shall be provided and utilized.

G. Protective coveralls, and other protective clothing shall be donned and removed within the Decontamination Zone and shall be disposed of at the end of each day. Ripped coveralls shall be immediately replaced after appropriate decontamination has been completed to the satisfaction of the site supervisor. Protective clothing shall not be worn outside of the Decontamination Zone.

H. Hard Hats, protective eyewear, rubber boots and or other non-skid footwear shall be provided by the PCB Abatement Contractor as required for workers and authorized visitors.

I. All contaminated protective clothing, respirator cartridges and disposable protective items shall be placed into proper containers to be provided by the PCB Abatement Contractor for transport and proper disposal in accordance with 40 CFR 262.

1.11 EMERGENCY EQUIPMENT AND FIRST AID REQUIREMENTS

A. The PCB Abatement Contractor shall provide and maintain at the site, at a minimum, the following Emergency and First Aid Equipment:

1. Fire Extinguishers: A minimum one (1) fire extinguisher shall be supplied and maintained at the site by the PCB

Abatement Contractor throughout the duration of the project. Each extinguisher shall be a minimum of a 20 pound Class ABC dry fire extinguisher with Underwriters Laboratory approval per 29 CFR 1910.157.

2. First Aid Kit: A minimum of one (1) first aid kit meeting the requirements of 29 CFR 1910,151 shall be supplied and maintained at the site by the PCB Abatement Contractor throughout the duration of the project.
3. Communications: Telephone communications (either cellular or land line) shall be provided by the PCB Abatement Contractor for use by site personnel at all times during the project.

B. The Health and Safely Officer shall be notified immediately in the event of personal injury, potential exposure to contaminants, or other emergency. The site supervisor shall then immediately notify the Owner's Authorized Representative.

1.12 STANDARD SAFETY AND HEALTH PROCEDURES AND ENGINEERING CONTROLS

A. The following provisions shall be employed to promote overall safety, personnel hygiene and personnel decontamination:

1. Each PCB Abatement Contractor or Subcontractor shall ensure that all safety equipment and protective clothing to be utilized by its personnel is maintained in a clean and readily accessible manner at the site.
2. All prescription eyeglasses in use on this project shall be safety glasses conforming to ANSI Standard Z87.1. No contact lenses shall be allowed on the site.
3. Prior to exiting the delineated Decontamination Zone(s), all personnel shall remove protective clothing, and place disposable items in appropriate disposal containers to be dedicated to that purpose. Following removal of PPE, personnel shall thoroughly wash and rinse their face, hands, arms and other exposed areas with soap and tap water wash and subsequent tap water rinse. A fresh supply of tap water shall be provided at the site on each work day by the PCB Abatement Contractor for this purpose.
4. All PPE used on site shall be decontaminated or disposed of at the end of each work day. Discarded PPE shall be placed in sealed DOT approved 55-gallon barrels for off-site disposal.
5. Respirators, if necessary due to an upgrade to Level C PPE, shall be dedicated to each employee, and not interchanged between workers without cleaning and sanitizing.
6. Eating, drinking, chewing gum or tobacco, smoking, and any other practice that increases the likelihood of hand to mouth contact shall be prohibited within the delineated abatement and decontamination work zones. Prior to performing these activities, each employee shall thoroughly cleanse their face, hands, arms and other exposed areas.
7. All personnel shall thoroughly cleanse their face hands, arms and other exposed areas prior to using toilet facilities.
8. No alcohol, tobacco, illicit drugs or firearms will be allowed on the site at any time.

9. Contact with potentially contaminated surfaces should be avoided, if possible. Field personnel should minimize walking through standing water/puddles, mud or other wet or discolored surfaces; kneeling on ground; and placing equipment, materials or food on ground or other potentially contaminated surface.
10. The use of the "Buddy System" shall be employed at all times while conducting work at the site. Each employee shall frequently monitor other workers for signs of heat stress or chemical exposure or fatigue: periodically examine others PPE for signs of wear or damage; routinely communicate with others; and notify the Site supervisor in the case of an emergency.

B. Worker's must wear protective suits, protective gloves, eye protection and a minimum of half-face respirator with HEPA filter cartridge for all projects. Respiratory protection shall be in accordance with OSHA regulation 1910.134 and ANSI Z88.2.

C. Workers must be trained as per OSHA and USEPA requirements, have medical clearance and must have recently received pulmonary function test (PFT) and respirator fit tested by a trained professional.

1. A personal air sampling program shall be in place as required by OSHA.
2. The use of respirators must also follow a complete respiratory protection program as specified by OSHA.

PART 2 - PRODUCTS

2.1 ABATEMENT PRODUCTS

A. All materials shall be delivered in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name.

B. Disposal Drums: Metal or fiberboard with locking ring tops, with warning labels as required by OSHA, and/or EPA.

C. Respirators:

1. Type: Approved by the Mine Safety and Health Administration (MSHA), Department of Labor, or the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services.

D. Vacuum Cleaners:

1. Type: Vacuums equipped with HEPA filters.

E. Polyethylene Sheeting:

1. Type: Minimum 6 mil., opaque, fire retardant polyethylene sheets.
2. Floor Protective Layer: Minimum 10 mil., reinforced polyethylene sheets.

F. Cleaning Products: PCB Abatement Contractor shall at their discretion utilize specialty cleaning products such as *Capsur*, *TechXtract* or other cleaners for use in decontaminating porous and non-porous surfaces to remain. All such products shall be utilized in accordance with manufacturer's specifications as intended. PCB Abatement Contractor shall ensure appropriate use and disposal associated with use in accordance with the MSDS sheets for each product utilized. It shall be incumbent upon the PCB Abatement Contractor to determine the need for use of specialty products to meet required cleaning verification levels established herein and in accordance with the Performance Based Disposal Plan.

2.2 GENERAL EQUIPMENT

A. A sufficient supply of disposable mops, rags, and sponges for work area cleaning and decontamination shall be available.

B. A sufficient supply of scaffolding, ladders, lifts, and hand tools (e.g., scrapers, wire cutters, brushes, utility knives, wire saws, etc.) shall be provided as needed.

2.3 PERSONNEL PROTECTION

A. Safety equipment (e.g., hard hats meeting the requirements of ANSI Standard Z89.1-1981, eye protection meeting the requirements of ANSI Standard Z87.1-1979, safety shoes meeting the requirements of ANSI Standard Z41.1-1967, disposable PVC gloves or other work gloves), shall be provided to all workers and authorized visitors.

B. Non-skid footwear shall be provided to all abatement workers. Disposable clothing shall be adequately sealed to the footwear to prevent body contamination.

PART 3 - EXECUTION

3.1 PRE-ABATEMENT MEETING

A. At least one week prior to the start of work a Pre-Construction Meeting will be scheduled and must be attended by the PCB Abatement Contractor and any Sub-Contractors. The assigned PCB Abatement Contractor site supervisor is also required to attend this meeting.

B. The contractor shall present a detailed project schedule and project submittals at the Pre-Construction Meeting. Variations, amendments, and corrections to the presented schedule will be discussed, and the Owner and Consultant will inform the PCB Abatement Contractor of any scheduling adjustments for this project.

C. Following the Pre-Construction Meeting, the Contractor shall submit a revised schedule (if needed) no later than one week after the meeting.

3.2 WORK AREA PROTECTION – ABATEMENT ZONE GENERAL

A. Protection of Existing Construction: Perform PCB Bulk Product Waste and PCB Remediation Waste removal work without damage or contamination of adjacent areas, asphalt and/or concrete paving, soils, and existing construction.

B. Prior to commencement of PCB abatement activities at each work area, a containment system shall be constructed by the PCB Abatement Contractor to capture and contain all materials removed during the abatement. Containment procedures referenced for the abatement zone must be utilized for PCB Bulk Product Waste removal.

C. During all remediation activities, the PCB Abatement Contractor shall maintain control of all entrances and exits to the work areas to ensure only authorized personnel enter the work areas and are afforded proper personal protective equipment and as required respiratory protection. All approaches to work areas shall be demarcated with appropriately worded warning signs.

D. Work zones shall be established in accordance with this section to include abatement zone, decontamination zone, and support zone.

3.3 WORK AREA PROTECTION – ABATEMENT ZONE FOR PCB BULK PRODUCT

A. Ground protection to prevent debris from escaping the abatement zone and to protect areas outside of abatement zone from PCB contamination shall be utilized. Protection shall include the two layers of 6-mil reinforced polyethylene sheeting securely fastened to foundation.

B. Isolation barriers shall be installed on the interior of the building, at the edge of the concrete block and/or precast concrete approximately six inches feet away from the window systems to isolate these systems to the building exterior where work shall be performed. Two layers of 6-mil reinforced polyethylene sheeting shall create the exterior critical barrier between the Abatement Zone and Interior of the Building.

C. All other openings to the building interior such as unit ventilation, ducts, grilles shall be securely sealed with a single layer of 6-mil reinforced polyethylene sheeting from the building exterior.

D. Ground protection and isolation barriers shall remain in place throughout work to collect dust and debris resulting from PCB Bulk Product Waste removal. All debris generated during operations including but not limited to visible caulking, dust and debris shall be HEPA vacuumed continuously throughout the work shift and at the end of a work shift to avoid accumulation. Any tears or rips that occur in protections shall be repaired or removed and replaced with new protections. Ground protection and isolation barriers shall not be removed until post-cleaning verification sampling has been performed and acceptable results have been achieved.

E. All equipment utilized to perform cutting, or demolition of adjacent materials shall be equipped with appropriate dust collection systems.

F. All surfaces adjacent to materials removed shall be properly decontaminated upon completing the removal of PCB Bulk Product Wastes. All visible dust shall be removed using HEPA vacuums and wet cleaning methods with solvent or other acceptable products.

G. Appropriate PCB waste containers shall be placed adjacent to abatement zone within the construction chain link fence. Containers shall be lined covered and secured. The PCB waste containers shall be properly marked as described in 40 CFR part §761.40. Marking shall include a PCB M_L marker utilizing the format described in 40 CFR part §761.45.

3.4 WORK AREA PROTECTION – ABATEMENT ZONE FOR <50 PPM PCB WASTE

A. Ground protection to prevent debris from escaping the abatement zone and to protect areas outside of abatement zone from PCB contamination shall be utilized. Protection shall include the two layers of 6-mil reinforced polyethylene sheeting securely fastened to foundation.

B. Isolation barriers shall be installed on the interior of the building, at the edge of the concrete block and/or precast concrete approximately six inches feet away from the door systems to isolate these systems to the building exterior where work shall be performed. Two layers of 6-mil reinforced polyethylene sheeting shall create the exterior critical barrier between the Abatement Zone and Interior of the Building.

C. All other openings to the building interior such as unit ventilation, ducts, grilles shall be securely sealed with a single layer of 6-mil reinforced polyethylene sheeting from the building exterior.

3.5 DECONTAMINATION ZONE

A. The PCB Abatement Contractor shall establish contiguous to the work area, a decontamination enclosure consisting of equipment room, shower room, and clean room in series. The only access between contaminated and uncontaminated areas shall be through this decontamination enclosure. The PCB Abatement Contractor shall ensure that employees enter and exit the Abatement Zone through the decontamination area.

B. Access between rooms in the decontamination system shall be through double flap curtain opening airlocks.

C. Construct the decontamination systems with wood, metal, or plastic framing covered on both sides with a double layer of six mil polyethylene sheeting, spray glued or taped at the joints.

D. The PCB Abatement Contractor shall visually inspect interior and

exterior critical barriers that separate the Abatement Zone and the Interior of the Building, respectively, several times daily to assure effective seal and the PCB Abatement Contractor shall repair defects immediately.

E. Equipment room. The equipment room shall be supplied with impermeable, labeled bags and containers for the containment and disposal of contaminated protective equipment.

F. Shower area. Shower facilities shall be provided which comply with 29 CFR 1910.141(d)(3). The showers shall be adjacent both to the equipment room and the clean room.

G. Clean change room. The clean room shall be equipped with a locker or appropriate storage container for each worker's use. Following showering, each worker must then change into street clothing in clean change areas.

H. Decontamination area entry procedures. The PCB Abatement Contractor shall ensure that all workers follow proper decontamination procedures for entry into a Regulated Work area including but not limited to the following:

1. Enter the decontamination area through the clean room;
2. Remove and deposit street clothing within a locker provided for their use;
3. Put on protective clothing and respiratory protection before leaving the clean room.
4. Before entering the Abatement Zone, the PCB Abatement Contractor shall ensure that workers pass through the equipment room.

I. Decontamination area exit procedures. The PCB Abatement Contractor shall ensure that all workers follow proper decontamination procedures for exit from a Regulated Work area including but not limited to the following:

1. Before leaving the regulated area, workers shall remove all gross contamination and debris from their protective clothing.
2. Workers shall remove their protective clothing in the equipment room and deposit the clothing in labeled impermeable bags or containers.
3. Workers shall not remove their respirators in the equipment room.
4. Workers shall shower prior to entering the clean room.
5. After showering, workers shall enter the clean room before changing into street clothes.

J. Equipment Room for Waste Removal: The PCB Abatement Contractor shall establish a two chamber equipment room or area that is adjacent to the Abatement Zone for the decontamination of waste containers and equipment as noted above.

1. The area must be of sufficient size as to accommodate cleaning of equipment and removing waste without spreading contamination beyond the area (as determined by visible

accumulations).

2. All equipment and surfaces of containers filled with PCB waste must be cleaned prior to removing them from the equipment room or area.

3.6 PCB BULK PRODUCT WASTE MATERIALS

A. PCB Bulk Product Waste Materials shall be handled and removed from specified locations for proper disposal.

B. PCB Bulk Product Waste Materials shall be removed to exterior of the building. No interior removal of PCB Bulk Product Waste Materials shall be performed.

C. Materials shall be removed in a manner which does not breakdown the materials into fine dust or powder to the extent feasible. Equipment and tools to be utilized shall include hand tools and mechanical equipment such as demolition hammers to remove materials from adjacent substrates. Mechanical removal equipment shall as appropriate be fitted with dust collection systems.

D. Any dry or brittle caulking, glazing, or adhesive materials shall be removed with additional engineering controls such as use of a HEPA vacuum to remove accumulated dust or debris during removal.

E. Sequence of removal shall follow the following general requirements:

1. Site preparation and controls shall be completed. Work shall not proceed until authorized by the Consultant.
2. Window systems with PCB containing exterior and interior window caulking and glazing compounds, adhesive under aluminum window sills, and window sash and frame adhesive shall be removed in their entirety for disposal as PCB Bulk Product Waste mixed with asbestos. This includes but is not limited to metal frames, window glass, and transite panels.
3. Use a solvent as appropriate to completely remove all visible materials for disposal as PCB Bulk Product mixed with asbestos.
4. Clean all surface of adjacent materials using appropriate cleaning products or solvents to completely removal all dust and debris.
5. Once cleaning is complete, post cleaning verification sampling shall be conducted. If post cleaning verification sampling identifies concentrations of PCBs ≥1 ppm, then additional cleaning and if needed, removal of contaminated block will be conducted. Debris generated during this phase will be disposed of as PCB Remediation Waste.

F. Waste shall be immediately containerized in temporary 6-mil polyethylene disposal bags for disposal. These containers shall be sealed in abatement zone when full during collection and then placed in disposal containers/storage trailers. The containers shall not be emptied into other containers to avoid dispersal of dust or fugitive emissions.

G. The use of minimal quantities of water to moisten the generated dust prior to collection shall be utilized. Under no circumstances shall the PCB waste show evidence of free liquid water, pooling or ponding within the waste stream. Any liquid used to wet the dust and debris to control fugitive emissions shall be properly containerized and decontaminated in accordance with 40 CFR Part §761.79 (b)(1) or disposed of in accordance with40 CFR Part §761.60 (a).

H. PCB Bulk Product Waste shall be stored for disposal in accordance with 40 CFR Part §761.65 and marked in accordance with 40 CFR Part §761.40 and §761.45.

I. All waste containers shall be appropriately labeled in accordance with 40 CFR Part §761.40 and §761.45. Labeling shall include the PCB M_L marker.

3.7 <50 PPM PCB CONTAINING MATERIALS

A. PCB-containing materials containing less than 50 ppm and are to be removed from specified locations for proper disposal.

B. <50 PPM PCB Containing Materials shall be removed to exterior of the building. No interior removal of PCB Bulk Product Waste Materials shall be performed.

C. Materials shall be removed in a manner which does not breakdown the materials into fine dust or powder to the extent feasible. Equipment and tools to be utilized shall include hand tools and mechanical equipment such as demolition hammers to remove materials from adjacent substrates. Mechanical removal equipment shall as appropriate be fitted with dust collection systems.

D. Any dry or brittle materials or other PCB waste containing PCB <50 ppm shall be removed with additional engineering controls such as use of a HEPA vacuum to remove accumulated dust or debris during removal.

E. Sequence of removal shall follow the following general requirements:

1. Construction of a regulated area shall be performed.
2. Removal of <50 ppm PCB containing materials using hand tools and/or mechanical equipment fitted with dust collection systems.
3. Use a solvent as appropriate to completely remove all visible materials for disposal as PCB Waste <50 ppm and asbestos.
4. Clean all surface of adjacent materials using appropriate cleaning products or solvents to completely removal all dust and debris.

F. Waste shall be immediately containerized in 6-mil polyethylene disposal bags then placed into steel 55-gallon DOT approved drums for disposal. Waste generated includes PCB <50 ppm. The waste shall be containerized in six-mil polyethylene bags or sheeting. Facility proposed for disposal shall be permitted to accept waste

with PCB <50 ppm. See also requirements for asbestos waste disposal in Section 02080.

G. The use of minimal quantities of water to moisten the generated dust prior to collection shall be utilized. Under no circumstances shall the PCB waste show evidence of free liquid water, pooling, or ponding within the waste stream. Any liquid used to wet the dust and debris to control fugitive emissions shall be properly containerized and decontaminated in accordance with 40 CFR Part §761.79 (b)(1) or disposed of in accordance with40 CFR Part §761.60 (a).

3.8 CLEANING AND DECONTAMINATION

A. The PCB Abatement Contractor shall be responsible for complete cleaning and decontamination of the Abatement Zone upon completion of work. The Abatement Zone will be required to meet proposed Verification Sampling limits established in the Performance Based Disposal Plan prior to containment tear down.

B. The PCB Abatement Contractor shall utilize HEPA vacuum and wet cleaning products to remove all visible dust and debris from all surfaces within the work area. If specialty products are utilized the PCB Abatement Contractor shall utilize in accordance with manufacturer's specifications including any additional safety and disposal requirements for such use.

C. Cleaning of containment barriers shall be performed prior to removal leaving critical barriers at openings, decontamination units and negative air filtration devices in place until results of post verification sampling indicate acceptable limits. Cleaning shall be performed from ceiling to floors.

D. Any liquid used to wet the dust and debris to control fugitive emissions shall be collected and decontaminated in accordance with 40 CFR Part §761.79 (b)(1) or disposed of in accordance with §761.60 (a).

E. All rags and other cleaning materials used to clean shall also be properly disposed as PCB Remediation Waste. All PCB Remediation Waste shall be stored for disposal in accordance with 40 CFR Part §761.65. All waste containers shall be appropriately marked in accordance with 40 CFR Part §761.40 and §761.45.

F. Equipment to be utilized in connection with the removal of PCB Bulk Product Waste and PCB Remediation Waste including waste collection or that will or may come in direct contact with the site contaminants shall be decontaminated prior to leaving the site to prevent migration of the contaminated residues from the project site. Decontamination shall be in accordance with 40 CFR Part §761.79 and Sub-part S procedures.

G. All non-disposable equipment and tools employed in the course of the project will be decontaminated at the conclusion of each work day through the following sequence:

1. Initial tap water rinse, to remove gross contaminants

2. Tap water and hexane or equivalent wash
3. Tap water rinse
4. Second tap water and hexane or equivalent wash
5. Second tap water rinse

H. The wash water and decontamination liquids shall be captured and containerized in DOT approved 55-gallon barrels for off-site disposal.

3.9 CERTIFICATION OF ABATEMENT AND SAMPLING

A. The Owner shall retain a Consultant (Owner's Authorized Representative) to perform periodic inspections and sampling during the work. Site visits shall be scheduled based on the progress of the work and at critical time periods.

B. The Consultant shall perform real time monitoring for dust particulate using Dust Trak or equivalent monitoring devices for total dust. Sampling may be performed prior to abatement for background comparison to during abatement sampling. In addition, air sampling outside of the Abatement Zone, may be performed periodically during active removal activities at the Owner's Authorized Representative's discretion for laboratory confirmation.

C. It should be noted that if the results of air samples exceed established action levels or ambient background conditions for real time monitoring whichever is less the PCB Abatement Contractor will be required to implement work stoppage to determine causes of exceeding results and as necessary utilize additional containment measures or engineering controls. Any resulting decontamination of areas beyond the Abatement Zone shall be responsibility of the PCB Abatement Contractor.

D. The Consultant shall perform post-cleaning verification and post-remediation verification sampling as necessary to determine complete removal of PCB's. Refer to the Performance Based Disposal Plan for requirements for determination of clearance levels.

E. Once post-cleaning and post-verification sampling has documented the Abatement Zone meets required criteria established in the Performance Based Disposal Plan, the PCB Abatement Contractor shall be permitted to remove decontamination unit, isolation barriers, negative pressure units, etc. These areas shall be subjected to a visual inspection to ensure no visible dust is present.

3.10 MARKING OF WASTE CONTAINERS

A. All waste containers must be marked with the name of the waste contained; the date in which the first material was placed in the vessel; and the last date at which addition of waste occurred. All waste containers must be marked with a PCB M_L marker.

B. All waste containers containing PCB Bulk Product Waste, Bulk PCB Remediation Waste and PCB contaminated debris, containment system

components, used personnel protective equipment, personal and equipment wash water and decontamination fluids, or other wastes generated during the abatement work shall be labeled as follows:

DOT Class 9 UN3432 (solid)
Or UN2315 (liquid) PCB Waste
RQ
Waste for Disposal

Federal law prohibits improper disposal.
If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

a. Generator's Information: _____
b. Manifest Tracking No.: _____
c. Accumulation Start Date: _____
d. EPA ID No.: _____
e. EPA Waste No.: _____
f. Total Weight: _____
g. Container No.: _____

HANDLE WITH CARE!

In addition, these containers must be marked with a PCB M_L marker.

C. Such marking must be durable, in English and printed on or affixed to the surface of the package or on a label, tag or sign; displayed on a background of sharply contrasting color; un-obscured by labels or attachments and located away from any other marking (such as advertising) that could substantially reduce its effectiveness.

3.11 ON-SITE WASTE MANAGEMENT AND DISPOSAL OF SOLID HAZARDOUS WASTES

A. All solid waste material, containment system components, used personnel protective equipment, and other solid wastes generated during the work, shall be placed directly in appropriate waste receptacles immediately upon removal from its in-situ position. Suitable waste receptacles may consist of roll-off containers or DOT-approved 55-gallon barrels.

B. The PCB Abatement Contractor shall be responsible for all packaging, labeling, transport, and disposal and record-keeping associated with PCB or PCB contaminated waste in accordance with all federal, state and local regulations.

C. The PCB Abatement Contractor shall ensure that the person transporting the waste holds a valid permit issued in accordance with appropriate federal, state, and local regulations.

D. The PCB Abatement Contractor shall provide to the transporter at the time of transfer appropriate shipping records or uniform waste manifests as required by the federal, state and local regulations with a copy to the Owner and Owner's Authorized Representative.

E. PCB Abatement Contractor shall maintain proper follow up procedures to assure that waste materials have been received by the designated waste site in a timely manner and in accordance

with all federal, state and local regulations.

F. The PCB Abatement Contractor shall assure that disposal of polychlorinated biphenyls (PCB) containing waste material is at a facility approved to accept such waste and shall provide a tracking/manifest form signed by the landfill's authorized representative.

G. If roll-off containers are to be utilized for containerization of the abatement wastes the following shall apply:

1. All roll-off containers or other similar vessels utilized shall be watertight and lined with 6-mil polyethylene sheeting or equivalent impermeable lining, and equipped with a secured and impermeable cover.
2. The impermeable cover shall remain securely in place at all times when material is not being actively placed in the vessels. The PCB Abatement Contractor shall be responsible for ensuring that the cover remains securely intact until the container is removed from the site.

H. If 55-Gallon barrels are to be utilized for waste containerization, the barrels shall consists of suitable DOT-approved 55-gallon barrels that are watertight and free of corrosion, perforations, punctures, or other damage. All barrels shall be securely covered and sealed at the conclusion of each work day.

I. The waste containers shall remain staged at the site with a secure impermeable cover in place until the materials are transported from the site to be delivered to the designated disposal facility.

J. A waste roll-off and barrel staging area shall be designated prior to initiation of the abatement work, and approved by the Owner's Authorized Representative. If this area is located outside of the building, the area (or areas) shall be surrounded by a chain-link fence with a minimum height of six feet. The fence shall be labeled with a PCB M_L marker.

K. Properly containerized waste must be transported by a licensed hauler and shipped as PCB Bulk Product Waste for disposal at a permitted soil waste facility in accordance with 761.62(b).

L. Bulk PCB Remediation Waste must be transported by a licensed hauler and shipped as PCB Remediation for disposal in accordance with 40 CFR 761.61(b) at a facility permitted by the EPA at a hazardous waste landfill permitted by EPA under section 3004 of RCRA, or by a State authorized under section 3006 of RCRA or a chemical waste landfill approved under 40 CFR 761.75 which is an EPA, TSCA approved facility for PCB Remediation Waste. Provide required copies of the uniform waste manifests for hazardous wastes to the Owner, waste generation State and waste destination State as required.

M. Properly containerized waste must be transported by a licensed hauler and shipped as Bulk PCB Remediation Waste $\leq$50 ppm for

disposal at either a facility permitted by a State to manage non-municipal hazardous waste, a EPA permitted hazardous waste landfill, or a PCB disposal facility. Provide required copies of the uniform waste manifests for PCB Remediation Waste <50 ppm to the Owner, waste generation State and waste destination State as required.

N. Any PCB Liquid Water Waste shall be properly containerized and decontaminated in accordance with 40 CFR Part §761.79 (b)(1) or disposed of in accordance with 40 CFR Part §761.60 (a).

O. Any chemicals, solvents or other products used during decontamination shall be properly containerized as PCB Liquid Waste. Waste must be properly decontaminated or disposed in accordance with 40 CFR Part §761.60 (a) or 40 CFR Part §761.79 (g). PCB Liquid Waste shall be transported by a licensed hauler and shipped for treatment or disposal. Provide required copies of the uniform waste manifests for hazardous wastes to the Owner, waste generation State and waste destination State as required.

P. All contaminated waste shall be carefully loaded on trucks or other appropriate vehicles for transport. Before and during transport, care shall be exercised to insure that no unauthorized persons have access to the material.

Q. Transporters of the waste are prohibited from "back hauling" any freight after the disposition of the Owner's waste stream until decontamination of the vehicle and/or trailer is assured.

END OF SECTION